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ABSTRACT

Presented are abstracts of documents and research pertaining to the clinical description, laboratory diagnosis, management, and therapy of syphilis and gonorrhea. Abstracted case studies of other minor venereal and related diseases are also included, as are bibliographies on current research and evaluation, public health methods, and behavioral studies. Also presented is a list of current books in print. (Related documents: SP 007 494 and SP 007 495.) (JB)

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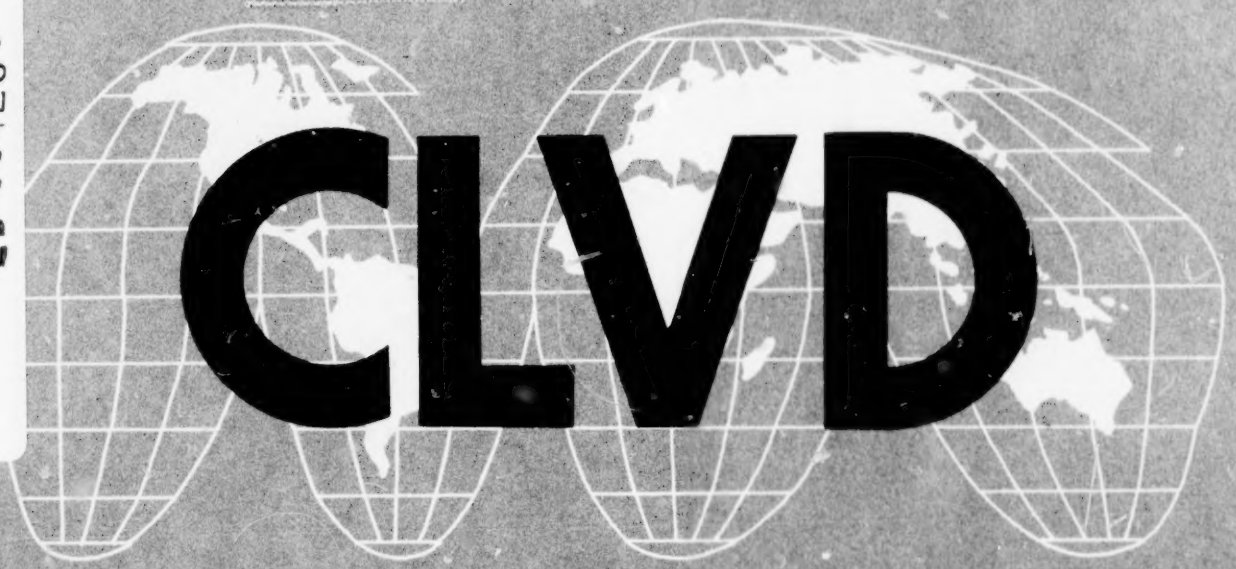

# CLVD

## CURRENT LITERATURE ON VENEREAL DISEASE

*Abstracts and Bibliography*

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# FOREWORD

Current Literature on Venereal Disease presents a survey of recently published literature in the field. Effort is made to keep the abstracts as current as possible and sufficiently informative to enable the reader to decide whether the original article would be of interest to him. For the benefit of the reader, where possible the address of the first author is included with each abstract. Publication of the abstract does not necessarily imply endorsement by the U.S. Public Health Service of the original article or of commercial products or other drugs or methods of therapy mentioned therein.

In compiling these abstracts we utilize the Medical Literature Analysis and Retrieval System (MEDLARS) of the National Library of Medicine. Under this system, 2,300 foreign and domestic biomedical periodicals are searched for material dealing with or related to venereal disease. We also utilize the libraries of Emory University, the Center for Disease Control and other federal agencies.

From time to time, as new books appear which deal with the venereal diseases, a list will be appended. Again, publication of such a list does not imply endorsement by the U.S. Public Health Service.

Current Literature on Venereal Disease is published three times each year and is indexed annually. Distribution is made to medical and other interested personnel and institutions throughout the United States and in 70 additional countries. Individuals desiring to be placed on the mailing key to receive Current Literature on Venereal Disease on a regular basis should write to the Center for Disease Control, Attention: Technical Information Services, State and Community Services Division, Atlanta, Georgia 30333.

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# DIAGNOSIS AND MANAGEMENT

## SYPHILIS AND OTHER TREPONEMATOSES

### Clinical

OPTIC ATROPHY AND NEUROSYPHILIS. J. Lawton Smith and Charles W. Israel–Department of Ophthalmology, University of Miami School of Medicine, Miami, Florida. ANNU REV MED (Palo Alto) 22:103-118, 1971.

"Two major recent advances in late syphilis of interest to every clinician have occurred in the past decade. These are: (1) the frequency of clinically progressive late seronegative syphilis; and (2) the presence of treponemes in patients with late syphilis despite penicillin therapy. . . .The magnitude of the problem is evidenced by the fact that over 500 cases of late ocular and neurosyphilis have been detected on clinical grounds on the ophthalmological service of one city hospital in Miami, Florida, in the past eight years, and have been serologically confirmed by the FTA-ABS (fluorescent treponemal antibody absorption) test. For these reasons, several cases [are] presented to illustrate important clinical, serologic, and laboratory aspects of late ocular and neurosphilis."

In addition to the five case reports, authors review previous studies on treponemal survival following therapy and studies which have changed the clinical concepts of late syphilis. In conclusion, based on the cases in this report and on findings in the recent literature, authors summarize as follows:

1. Clinically active late syphilis is a common disease and frequently is found in patients who are seronegative to the commonly employed (reagin) serological tests.
2. The serum FTA-ABS test is indicated in the clinical evaluation of any patient showing progressive disease of the eyes and nervous system, not otherwise explained, and regardless of the serum VDRL test findings.
3. Spirochetes have been found in the absence of any clinical or laboratory evidences of inflammation.
4. Spirochetes have been demonstrated in patients despite treatment with large doses of penicillin therapy in late syphilis.
5. Progression of paresis after treatment has been documented in one-third of the cases followed for ten years.
6. *Treponema pallidum* has been demonstrated with the fluorescent antibody technique *in vivo* in the human brain in seronegative patients.
7. Histopathologically active general paresis has now been documented *in vivo* in the human brain despite nonreactive VDRL tests in both serum and cerebrospinal fluid.

* * *

FAMILIAL CHRONIC BIOLOGIC FALSE-POSITIVE SEROREACTIONS FOR SYPHILIS. REPORT OF TWO FAMILIES, ONE WITH THREE GENERATIONS AFFECTED. George H. Kostant–40 Union Avenue, Irvington, New Jersey 07111. JAMA (Chicago) 219:45-48, January 1972.

Author's abstract: Two families manifested hereditary chronic biologic false-positive (BFP) seroreactions [to reagin tests] for syphilis. In one family, this trait was demonstrated in four of seven members, affecting three generations, grandfather, son, daughter, and granddaughter. Grandfather and son manifested increasing reagin titers over a period of 11 to 17 years. Positive Coombs' tests indicating autoantibodies were demonstrated in two seroreactors. In the second family, three of five members were affected, father, son, and daughter. The chronic BFP reaction appears to be a genetically transmissible trait associated with humoral autoanti-

bodies with the potential for autoimmune disease.

* * *

CONGENITAL SYPHILIS. N.O. Bwibo–Department of Paediatrics, University of Nairobi, Kenya, East Africa. EAST AFR MED J (Nairobi) 48:185-191, April 1971.

Author's summary: Twenty-one cases of congenital syphilis seen at Mulago Hospital, Kampala are described. Swelling of the extremities with pseudoparalysis was the commonest mode of presentation. Snuffles and skin lesions were common. Periostitis and epiphysitis were evident on x-ray. The patients responded well on penicillin treatment. Prevention of the disease by screening and treating pregnant mothers is stressed.

* * *

CASE OF CONGENITAL NEUROSYPHILIS WITH A PICTURE OF JUVENILE PROGRESSIVE PARALYSIS (POLISH). Walenty Nyka–Zespol Neuropatologii, Centrum Medycyny Doswiadczalnej i Klinicznj PAN, Warszawa, ul. Pasteura 3, Poland. NEUROPATHOL POL (Warszawa) 9:353-357, October-December 1971.

English summary: "A case of congenital neurosyphilis is described, in which after meningitis, in early childhood a picture of juvenile progressive paralysis developed. The condition was considered by the family as a sequel of the disease suffered in early childhood and was not treated. The rare occurrence of similar cases prompted the author, in view of the increasing frequency of infection with syphilis and the often untypical course of infection, to describe this clinical-morphological analysis."

* * *

SCHIZOPHENIC SYNDROME IN CONGENITAL SYPHILIS (CZECHOSLOVAKIAN). O. Skalickova and K. Matulay-Psychiatricka Klinika fakulty vseobecneho lekarstvi KU, Praha, Czechoslovakia. CESK PSYCHIATR (Praha) 67:260-264, October 1971.

English summary: "An account is given of the investigation of 700 congenital syphilitics of whom 20, aged 18 to 49 years (5 males and 15 females), present a schizophrenic syndrome. This group includes patients (1) with certain congenital syphilis, (2) showing a schizophrenic syndrome, (3) who never had infantile GPI, i.e. the CSF was WR negative, only the blood and CSF proteins being more or less pathological. Reference is made to the known various etiological factors observed in schizophrenic syndromes, such as prenatal noxious agents, infection of ancestors, tuberculous meningitis, perinatal injury. In the group itself dysplasias and endocrinopathies were found. The conditions were activated particularly during the critical life periods. The premorbid personalities showed nearly always psychopathic features. According to the course of the disease 2 types were distinguished: 14 patients had a confusional onset emerging later into paranoid, sometimes catatonic, states; 6 patients had various schizophrenic disturbances right from the beginning. During insulin coma treatment reversal of the positive WR was sometimes noted. In discussing the relationship between the schizophrenic syndromes and congenital syphilis, it is pointed out that among the congenital syphilitics schizophrenic syndromes occurred in 3 percent, whereas their incidence in the general population is less than 1 percent. This descrepancy is suggestive of there being a causal relationship between the two conditions."

* * *

SYPHILITIC DEAFNESS. A CASE REPORT. C. K. Joshi–E.N.T. Department, K.E.M. Hospital, Bombay–12, India. J POSTGRAD MED (Bombay) 17:125-128, July 1971.

A case of syphilitic basal meningitis in a 16-year-old female is presented. The provisional diagnosis was an intercranial space occupying lesion. Bilateral posterior burr holes were done on the day of admission; postoperatively, it was decided to treat the patient empirically as suffering from tuberculous meningitis. When no improvement was noted, patient was referred to the E.N.T. Department. The correct diagnosis could be made only when the patient's ear complaints were taken into account. Following positive serologic tests, patient gave a history of

exposure at age 10 and again two months prior to her admission.

Author comments that there is no specific type of hearing loss in syphilis. The usual time of manifestations is the end of the secondary and the beginning of the tertiary stage. The manifestations can occur within 7 days of onset of the tertiary stage. Syphilis usually affects all parts of the auditory system, namely the brainstem, 8th nerve, spiral ganglia, labyrinth, organ of Corti and its vessels. The differential diagnosis between syphilis, toxic neuritis of the 8th nerve, and other forms of labyrinthine disease can be extremely difficult when evidences of secondary or tertiary forms of syphilis are absent.

* * *

CRANIAL LACUNAR OSTEITIS IN SECONDARY SYPHILIS (FRENCH). G. Cabanel, X. Phelip, and B. Gintz–Clinique Rhumatologique et Hydrologique de l' Universite Scientifique et Medicale, C. H. U. de Grenoble, F-38-La Tronche, Grenoble, France. PRESSE MED (Paris) 79:1755-1756, September 25, 1971.

Cases of cranial osteitis of secondary syphilis are rare. Over the years, only about forty cases have been reported. Authors report the case of a female, aged 35 years, who was hospitalized for headaches. Previous history revealed false labor five months earlier. The headaches were intense and worse at night. Patient reported weight loss, fatigue, and low grade fever. Physical examination revealed five small frontal parietal tumefactions on the skull, painful to the touch. There were no mucous or cutaneous signs and balance of physical examination was normal. Cranial x-rays showed ten lacunae on the fronto-parietal region. Contours were hazy, and tangential films showed they were not osteolyses but irregular marginal osseous infiltrations. Syphilis serology was strongly positive. Biopsy of tumefaction was refused. In spite of the absence of cutaneous or mucous lesions, the presumptive diagnosis was secondary syphilis. This diagnosis seemed confirmed by the effectiveness of the penicillin therapy: the headaches disappeared in one week; after 10 days of treatment, the cranial tumefactions were no longer perceptible; and in four months the cavities had filled again.

* * *

EXSANGUINATING HEMOPTYSIS DUE TO A RUPTURED SYPHILITIC ANEURYSM. Irvin M. Sopher and Werner U. Spitz–Office of the Chief Medical Examination of the State of Maryland, 111 Penn Street, Baltimore, Maryland 21201. J FORENSIC MED (JOHANNESBURG) 18:118-121, July-September 1971.

"Syphilis, while no longer the principal cause of thoracic aneurysm as it was before the days of effective therapy, still accounts for about 50 percent of thoracic aneurysms. . . .Thoracic aneurysm perforation most commonly occurs into the pericardial cavity, pleural cavities, bronchial tree or esophagus. Aneurysms of the ascending arch tend to perforate into the pericardial and right pleural cavities. Much less commonly, perforation into a pulmonary artery may be noted."

The case presented is one of a rapid death due to hemoptysis leading to marked blood loss and aspiration. The macroscopic and microscopic findings at the post-mortem examination confirm the syphilitic etiology of the aneurysm. The post-mortem VDRL titre corroborates the autopsy data. Communication with a large bronchus could not be demonstrated although close proximity between the aneurysm wall and a large bronchus was noted on microscopic examination.

* * *

ULTRASTRUCTURE OF PINTA (SPANISH). Jorge Fernandez-Diez–Seccion de Microscopia Electronica, Departamento de Investigacion Cientifica, Centro Medico Nacional Instituto Mexicano del Seguro Social, Mexico City, Mexico. ARCH INVEST MED (Mexico) 1:243-258, 1970.

English summary: "Skin biopsies from affected and non-affected areas in patients with pinta and two normal skin biopsies were studied with the electron microscope. In early pinta lesions there were melanocytes, Langerhans' cells and undetermined cells. In advanced lesions no melanocytes were found. In skin biopsies from non-affected areas in patients with pinta no undetermined cells were observed. In normal control patients only melanocytes were identified. *Treponema carateum* was not seen in skin lesions. The ultrastructural findings are similar

to those described in other pigmentaion related skin diseases."

* * *

YAWS AND GOUNDOU OF THE BONES (FRENCH). L. Cornet and J. Vilasco–Travail de Service de Chirurgie, Hospital de Treichville, C. H. U. D'Abidjan, Cote-D'Ivoire, Africa. J CHIR (Paris) 102:101-104, July-August 1971.

English summary: "Yaws, a trepanomatous infection due to *Treponema pertenue*, is a disappearing tropical disease. The case presented here showed typical bony yaws with sabre-like tibial deformities due to hypertrophic osteitis with condensation and hypertrophy of the upper jaw producing paranasal tumours which deform the face and are known as goundou (literally 'large nose' in the Agni language, an ethnic group in the Ivory Coast)."

* * *

ANATOMICAL EVIDENCE OF PRE-COLUMBIAN SYPHILIS IN THE WEST INDIAN ISLANDS. N.-G. Gejvall and F. Henschen–Osteological Research Laboratory of the University and the Pathological Department of Karolinska Institutet, Stockholm, Sweden BEITR PATHOL (Berlin) 144:138-157, 1971.

Authors' summary: Anthropological and pathological examinations [were made] of pre-Columbian skulls of aborigines from Puerto Rico, the neighboring island of Espanola (Haiti) where Columbus stayed during his first expedition and where some of his crew are said to have been infected with syphilis. The skulls, originally eight in number, came from a burial cave and in 1857 were made part of the Gustaf Retzius anthropological collections in Stockholm. In 1894 one of the skulls was given to Virchow upon his visit to Sweden. Virchow published his examination of this skull in 1896.

Five of the seven skulls show signs of a periositis and ositis with necroses and perforations of the calvarium, in the highest degree of probability of syphilitic origin. Since pre-Columbian syphilitic skull lesions have been almost unknown in the West Indian Island, the establishment of such lesions seems to be of a fundamental significance as supporting the Americanist's opinion that Europe was infected with syphilis after Columbus returned from his first expedition.

The anthropological examination of the material reveals many characters, both craniometric and qualitative ("discrete traits") which together with the finding place make it most probable that the individuals involved were closely related, belonging to the same population and perhaps to the same kinship or family.

* * *

## Laboratory Diagnosis

ATYPICAL FLUORESCENCE IN THE FTA-ABS TEST. Mildred Kerbaugh and Katie Daniels–Syphilis Unit, Laboratory Division, North Carolina State Board of Health, Raleigh, North Carolina 27611. HEALTH LAB SCI (New York) 9:24-26, January 1972.

Authors' abstract: In June, 1968 this laboratory observed and recorded as "beaded" an atypical fluorescence in an FTA-ABS test. Though the intensity of fluorescence of the "beads" is as great as in syphilitic sera, the area of the treponeme between the "beads" fluoresces little or none After seeing several, one was sent to the C.D.C. They reported having seen the reaction, but could not then explain it. The serum we sent, and three others they were studying, were from patients with systemic lupus erythematosus. This laboratory later observed the reaction [February 1970] in the serum of a thirteen year-old boy. Alerted, the hospital performed LE preparations which were positive. The diagnosis was confirmed at Duke University. This is the first reported case of lupus diagnosed as a result of its indication in the Atypical FTA-ABS reaction. Not all sera from SLE patients exhibit this phenomenon. It is important for technicians to recognize this phenomenon, avoid reporting it as reactive for syphilis, and alert the physician to the possibility of SLE.

* * *

A SIMPLIFIED SCHEMA FOR THE EVALUATION OF REACTIVE SEROLOGIC TESTS FOR SYPHILIS. Leslie Nicholas–Venereal Disease Program Specialist, Philadelphia Department of Public Health, Philadelphia, Pa. 19146. J CHRONIC DIS (St. Louis) 24:281-284, August 1971.

This simplified schema is presented for the guidance of both the graduate and student physician in the interpretation of reactive or weakly reactive serologic tests for syphilis in patients who are asymptomatic. To reach a diagnosis serologically, author states there are only three sets of criteria needed, provided the patient is asymptomatic. In the first group, with an indefinite history of syphilis, after the reagin test is repeated and reported reactive, the history must be carefully reviewed to determine if the diagnosis of syphilis was ever made and if past treatment was adequate. To verify treatment, the central registry should be checked, and, if necessary, hospital and private physician office records. If a cerebrospinal fluid examination was not performed and reported normal, it should be done at this time to rule out asymptomatic neurosyphilis. The triad of a normal spinal fluid, confirmed adequate treatment, and a normal physical examination means that the patient is serofast and further therapy is not necessary.

In the second group, the patients with the repeated reactive reagin test may or may not have a history of infection and/or treatment, but on physical examination there are objective signs which are syphilitic. Since the history may be vague, the FTA-ABS test should be done to establish diagnosis. If the test is reactive, confirmation of previous treatment as well as results of previous CSF examination should be sought. The CSF study must be done if not previously reported normal. If previous therapy was inadequate, appropriate treatment is in order.

The vast majority of asymptomatic seroreactors fall into the third group. These individuals give no history of syphilis nor history of treatment and present no physical signs of syphilis. They require testing for specific treponemal antibody (FTA-ABS) to confirm diagnosis. Past treatment should be verified through the central registry or elsewhere. If not previously performed, once the diagnosis of syphilis is established, spinal fluid must be checked to confirm a diagnosis of early or late latency; in either case, appropriate therapy is required.

* * *

A STUDY OF FTA-ABS AND TPHA (JAPANESE). Hideo Ota, Hironori Matsui, Shiro Saito, and Osamu Hikosaka–Aichi Institute of Public Health, Nagoya, Japan. J JAP ASSOC INFECT DIS (Tokyo) 45:112-115, March 1971.

English summary: "FTA-ABS and TPHA, especially their specificity and sensitivity as a serum reaction of syphilis, were studied in comparison with cardiolipin reaction, using 217 sera samples from patients with syphilis (21 primary, 172 late latent, and 24 congenital). The results were summarized as follows: (1) Sera of primary and congenital syphilis showed 100 percent positivity either by FTA-ABS or TPHA, while those of late latent syphilis were positive in 97.7 percent with FTA-ABS, in 94.2 percent with TPHA. (2) Results with FTA-ABS and TPHA were 100 percent in primary and congenital syphilis while in late latent syphilis 95.3 percent; cases with positive FTA-ABS and negative TPHA were 4.1 percent, and the contrary, 0.6 percent. (3) For the purpose of diagnosing the healing or following the course of the disease, cardiolipin reaction is preferred, because the two new methods seemed less calibrating in revealing the changing of antibody titers. The two, however, were shown very useful in differentiating biological false positive reaction (BFP) or diagnosing the sera with unreliable results with cardiolipin reaction."

* * *

TESTING FOR CONGENITAL SYPHILIS IN INTERSTITIAL KERATITIS. J. Lawton Smith–P.O. Box 875, Biscayne Annex, Miami, Florida 33132. AM J OPHTHALMOL (Chicago) 72:816-820, October 1971.

Author's summary: A review of 20 cases of late syphilitic interstitial keratitis revealed the frequent finding of seronegativity in such patients. The VDRL test was nonreactive in 74 percent, weakly reactive in 11 percent, and reactive in 16 percent of these cases. The serum

FTA-ABS test was nonreactive in 29 percent, borderline in 24 percent, reactive in 35 percent, and conflicting in 12 percent of the cases. Emphasis is placed upon clinical criteria for diagnosis.

* * *

THE BORDERLINE FLUORESCENT TREPONEMAL ANTIBODY ABSORPTION TEST REACTOR. NEURO-OPHTHALMOLOGICAL STATUS. Ronald L. Seeley, Manuel Sarkar, and J. Lawton Smith—Tampa Eye Clinic, 3000 W. Buffalo Avenue, Tampa, Florida 33607. ARCH OPHTHALMOL (Chicago) 87:16-20, January 1972.

Authors' abstract: A comparative study of 105 patients with borderline serum fluorescent treponemal antibody absorption (FTA-ABS) test results and 50 patients with nonreactive serum FTA-ABS test results was performed. "Syphilitic pupils" were found in 4 percent of the patients with nonreactive FTA-ABS tests, but in 15 percent of the borderline group. Optic atrophy was found in 18 percent of the control group and in 29 percent of the borderline group. Optic neuritis was present in 2 percent of the control group, and in 9.5 percent of the borderline group. The report of a ± nonreactive or borderline FTA-ABS test is significant to the clinican. Not only should the test be repeated, but a careful history should be taken and a complete examination for subtle signs of late ocular and neurosphilis should be performed.

* * *

EVALUATION OF QUALITATIVE HEMAGGLUTINATION TEST FOR ANTIBODIES TO *Treponema pallidum*. Ronald A. Le Clair—10962 Le Conte Avenue, Los Angeles, California 90024. J INFECT DIS (Chicago) 123:668-670, June 1971.

Three hundred forty sera were tested by the qualitative *Treponema pallidum* hemagglutination test (TPHA). The specificity of the TPHA test was 97 percent when determined on sera from 100 patients who were healthy, and 95 percent on sera from 100 patients who were considered to be biologic false-positive reactors. The overall specificity of the test was 96 percent when 200 sera from patients categorized as healthy or biologic false-positive reactors were tested.

The sensitivity of the test, as determined on sera from 10 patients with congenital syphilis, was 80 percent. Sensitivity for yaws was 100 percent; for pinta, 0 percent. The overall sensitivity of the test, as determined on sera from 130 patients with syphilis, was 92.3 percent. Authors comment that although the TPHA test lacks high levels of sensitivity in primary (50% of 10 primary syphilis sera) and congenital syphilis (80%), the level of sensitivity is acceptable for secondary, latent, and late-stage syphilis. The overall sensitivity of the test (92.3%) compares favorably with other tests for treponemal disease, and it detects antibodies to *Treponema pertenue*.

* * *

THE LYMCHOCYTE TRANSFORMATION TEST IN SYPHILIS (FRENCH). C. Janot, M. Grandidier, P. Pupil, J.-L. Thomas, J. Beurey, and E. de Lavergne—(Dr. de Lavergne) Laboratoire Central de Microbiologie, C.H.R., 29 av. Ml-de-Lattre-de-Tassigny, F-54-Nancy, France. PRESSE MED (Paris) 79:1901-1904, October 16, 1971.

English summary: "Until recent years, delayed hypersensitivity in syphilis had only been explored by the luo test. The authors have applied the lymphocyte transformation test to syphilis. The experiments were carried out in 83 syphilitic subjects at various stages of the disease, and in 43 control subjects without treponemal infection. The results obtained show clearly that delayed hypersensitivity occurs very early in syphilis, i.e. after a few weeks. Later it is maintained during the various stages of the disease. It remains significant in cured subjects, i.e. with no clinical sign and with negative serological tests. Finally, the authors consider the interest of this test during syphilis and its application in the future."

* * *

## Therapy

UNSUCCESSFUL TREATMENT OF EARLY SYMPTOMATIC SYPHILIS FOLLOWING ORAL ADMINISTRATION OF DETREOMYCIN, ERYTHROMYCIN, AND OXYTERRACIN (POLISH). J. Lebioda and E. Budzanowska–Z Oddzialu Dermatologicznego Szpitala Miejskiego im. Stefana Zeromskiego w Nowej Hucie, Krakow, Poland. PRZEGL LEK (Krakow) 27:469-472, 1971.

English summary: "The authors treated 229 patients with early symptomatic syphilis by oral administration of detreomycin, erythromycin and oxyterracin. The frequency and nature of failure were determined in 198 cases with an adequately long follow-up period after treatment. Therapeutic failure occurred in patients when the total dose of the antibiotic used was too small for the particular form of syphilis or the period of administration was too short. The therapeutic dose of these antibiotics lies within the limits of 20–40 g depending on the form of syphilis. The drug should be applied for a period of 20-30 days."

* * *

PHYSIOLOGIC CHANGES DURING THE JARISCH - HERXHEIMER REACTION IN EARLY SYPHILIS. A COMPARISON WITH LOUSE-BORNE RELAPSING FEVER. D. A. Warrell, P. L. Perine, A. D. M. Bryceson, E. H. O. Parry, and Helen M. Pope–Department of Medicine, Ahmadu Bello University, Zaria, Nigeria. AM J MED (New York) 51:176-185, August 1971.

Authors' abstract: In twelve of fifteen patients with early syphilis body temperature increased by more than 0.8°C after treatment with penicillin. In all cases the blood leukocyte count increased; the lymphocyte count fell in seven of eight patients, but neutropenia was never observed. In four of the patients detailed cardiorespiratory measurements were made. During the Jarisch-Herxheimer reaction (J-HR) metabolic rate increased, but pulmonary ventilation and cardiac output exceeded metabolic requirements. There was evidence of impaired pulmonary oxygen uptake, and systemic arterial blood pressure fell due to decreased vascular resistance. The role of leukocyte pyrogen in the Jarisch-Herxheimer reactions of secondary syphilis and louse-borne relapsing fever (LBRF) is discussed, and possible reasons are suggested for the differences in timing and intensity of the reactions in the two diseases for the absence of an early neutropenia in syphilis.

## Selected Bibliography

### Syphilis - Clinical


Anonymous: Congenital syphilis. ETHIOP MED J, Addis Ababa 8:161-162, Oct 1970.

Argenson C, Di Marino V, Lieutaud R: Anatomic lesions in a case of tabetic osteoarthropathy of the shoulder (FRENCH). MARS MED, Marseille 108:617-623, 1971.

Berlin SI. Bialkovskii OV: Occurrence of latent forms of syphilis in the absence of manifestations in the beginning stages (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:45-50, May 1971.

Boer JG De: Hutchinson-teeth (DUTCH). MED TIJDSCHR TANDHEELKD, Utrecht 78:308-309, Aug-Sep 1971.

Bratus NV, Borisenko AM, Konik OE: Results of electroencephalography in early and latent syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:50-53, Jul 1971.

*Bwibo NO: Congenital syphilis. EAST AFR MED J, Nairobi 48:185-191, Apr 1971.

*Cabanel G, Phelip X, Gintz B: Cranial lacunar osteitis in secondary syphilis (FRENCH). PRESSE MED, Paris 79:1755-1756, Sep 25, 1971.

Carton FX, Baledent M, Laude M: A case of historical syphilis (FRENCH). BULL SOC FR DERMATOL SYPHILIGR, Paris 78:284-285, 1971.

Colomb D, Brunet C, Valignat P: Recurrence of soft chancre. Two recent cases (FRENCH). BULL SOC FR DERMATOL SYPHILIGR, Paris 78:197-199, 1971.

*Cornet L, Vilasco J: Yaws and goundou of the bones (FRENCH). J CHIR, Paris 102:101-104, Jul-Aug 1971.

Degos R, Bernadou M: Tertiary syphilis (FRENCH). BULL SOC FR DERMATOL SYPHILIGR, Paris 78:287-288, 1971.

Erhart O, Eberl R: A case of combined inflammatory rheumatic and neuropathic joint changes (GERMAN). Z ORTHOP, Stuttgart 107:676-682, May 1970.

*Fernandez-Diez J: Ultrastructure of pinta (SPANISH). ARCH INVEST MED, Mexico 1:243-258, 1970.

Fleming TC, Bardenstein MB: Brief note. Congenital syphilis. J BONE JOINT SURG (AM), Boston 53:1648-1651, Dec 1971.

Fridman EL: A combination of primary syphilis and trichomonal balanoposthitis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:67-69, 1971.

*Gejvall NG, Henschen F: Anatomical evidence of pre-Columbian syphilis in the West Indian Islands. BEITR PATHOL, Berlin 144:138-157, 1971.

Gil Tutor E: Tertiary syphilis of the nasal fossa and the pharynx (SPANISH). ACTA OTORINOLARYNGOL IBER AM, Barcelona 22:366-384, 1971.

Gurich HG, Muhrer A: Syphilis of the aorta in the autopsy material of the Pathological Institute of the Medical Academy in Lubeck, in the years 1949-1968 (GERMAN). ZENTR LBL ALLG PATHOL, Jena 114:499-504, 1971.

Hoffmann E, Irmer W, Junemann A: Late results in thoracic aortic aneurysm (GERMAN). ZENTRALBL CHIR, Leipzig 95:393-401, Mar 28, 1970.

Jaegermann K: A rare case of Herxheimer's reaction in a 1-month-old infant with hemolytic jaundice in the course of congenital syphilis (POLISH). PRZEGL EPIDEMIOL, Warszawa 25:441-443, 1971.

*Joshi CK: Syphilitic deafness. A case report. J POSTGRAD MED, Bombay 17:125-128, Jul 1971.

Kahn LB, Gordon W: Sarcoid-like granulomas in secondary syphilis. A clinical and histopathologic study of five cases. ARCH PATHOL, Chicago 92:334-337, Nov 1971.


*Abstracted

*Kostant GH: Familial chronic biologic false-positive seroreactions for syphilis. Report of two families, one with three generations affected. JAMA, Chicago 219:45-48, Jan 1972.

Mikhailova AA, Gradova LI: Possibility of the transmission of syphilis in the blood of a donor with a latent form of this disease (RUSSIAN). PROBL GEMATOL PERELIV KROVI, Moskva 16:50-51, Jul 1971.

Novak Z, Hlavka V, Vrapcenjak J: Luetic aneurysm of the descended aortic arch with neurologic complications (case report) (CROATIAN). NEUROPSIHIJATRIJA, Zagreb 18:179-189, 1970.

*Nyka W: Case of congenital neurosyphilis with a picture of juvenile progressive paralysis (POLISH). NEUROPATHOL POL, Warszawa 9:353-357, Oct-Dec 1971.

Perrot H, Beyvin AJ, Etienne R: Reappearance of soft chancre (5 cases) (FRENCH). BULL SOC FR DERMATOL SYPHILIGR, Paris 78:200-201, 1971.

Rivoire J: Anal soft chancre and concomitant gonorrhea (FRENCH). BULL SOC FR DERMATOL SYPHILIGR, Paris 78:203, 1971.

Rozina LA, Moshkalova IA, D'Iachenko LA: Problem of latent syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:57-59, Jun 1971.

*Skalickova O, Matulay K: Schizophrenic syndrome in congenital syphilis (CZECHOSLOVAKIAN). CESK PSYCHIATR, Praha 67:260-264, Oct 1971.

*Smith JL, Israel CW: Optic atrophy and neurosyphilis. ANNU REV MED, Palo Alto 22:103-118, 1971.

Smith JL, Israel CW: A neuro-ophthalmologic study of late yaws and pinta. TRANS AM OPHTHALMOL SOC, New York 68:292-300, 1970.

*Sopher IM, Spitz WU: Exsanguinating hemoptysis due to a ruptured syphilitic aneurysm. J FORENSIC MED, Johannesburg 18:118-121, Jul-Sep 1971.

Thiers H, Moulin G, Michel F: Epidemic of soft chancres (9 cases) (FRENCH). BULL SOC FR DERMATOL SYPHILIGR, Paris 78:202, 1971.

Vasil'ev TV, Kochetkov VD: Clinical features of diencephalic manifestations in secondary recurrent syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:61-67, 1971.

Vasil'ev TV, Toporovskii LM, Egorov GI: Characteristics of current latent syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:45-50, Jul 1971.

## Syphilis - Laboratory Diagnosis

Abate L, Boni P, Pascali A: Diagnostic value of the Roemer and Schlipkoeter test in serodiagnosis of late syphilis (ITALIAN). ARCISP S ANNA FERRARA, Ferrara 23:309-315, 1970.

Evelk B: Specificity of the FTA-200 test and the FTA-ABS test (GERMAN). HAUTARZT, Berlin 22:442-445, Oct 1971.

Fischman A, Bree AD: Syphilis reference serology. NZ MED J, Wellington 74:238-240, Oct 1971.

Hubschmann K: The Nelson-Mayer TPI-test and treatment of syphilis in medical practice (GERMAN). WIEN KLIN WOCHENSCHR, Vienna 82:371-373, May 15, 1970.

*Janot C, Grandidier M, Pupil P, et al: The lymphocyte transformation test in syphilis (FRENCH). PRESSE MED, Paris 79:1901-1904, Oct 16, 1971.

*Kerbaugh M, Daniels K: Atypical fluorescence in the FTA-ABS test. HEALTH LAB SCI, New York 9:24-26, Jan 1972.

Kiersnicka-Itman I, Ruczkowska J, Michalska E: The dynamics of subsidence of antibodies in early symptomatic syphilis treated with penicillin (POLISH). PRZEGL DERMATOL, Warszawa 58:699-707, Nov-Dec 1971.



*Abstracted

*Le Clair RA: Evaluation of qualitative hemagglutination test for antibodies to *Treponema pallidum*. J INFECT DIS, Chicago 123:668-670, Jun 1971.

*Nicholas L: A simplified schema for the evaluation of reactive serologic tests for syphilis. J CHRONIC DIS, St. Louis 24:281-284, Aug 1971.

*Ota H, Matsui H, Saito S, et al: A study of FTA-ABS and TPHA (JAPANESE). J JAP ASSOC INFECT DIS, Tokyo 45:112-115, Mar 1971.

Ovchinnikov NM, Sazonova LV: Value of the *Treponema pallidum* immobilization test in the detection of late and visceral syphilis in general hospital patients (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:53-57, Sep 1971.

Reznikova LS, Odinokov, NV, Trofimova LIA: Detection of incomplete antibodies in the blood serum of patients with infectious forms of syphilis and some dermatoses (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:44-51, Aug 1971.

Rodin IUA, Komarovskaya VN: Evaluation of the results of the leukocyte agglomeration test in syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:64-68, Nov 1971.

Sagdeeva LG: One of the causes of nonspecific false positive reactions in syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 44:59-64, Sep 1970.

*Seeley RL, Sarkar M, Smith JL: The borderline fluorescent treponemal antibody absorption test reactor. Neuro-ophthalmological status. ARCH OPHTHALMOL, Chicago 87:16-20, Jan 1972.

Sirena A, Sardi JC, Ruiz Holgado AA: Comparative study of serologic reactions for the diagnosis of syphilis (SPANISH). PRENSA MED ARGENT, Buenos Aires 58:1691-1695, Oct 22, 1971.

*Smith JL: Testing for congenital syphilis in interstitial keratitis. AM J OPHTHALMOL, Chicago 72:816-820, Oct 1971.

Vasil'ev TV, Sazonova LV: *Treponema pallidum* immobilization test in properly treated patients with syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:52-57, Jun 1971.

Vorobeichik SM, Zmechorovskaya GA, Broer BA: Proteinogram and results of immunofluorescence tests in the examination of dried sera of patients with syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:45-50, Oct 1971.

Yogeswari L, Chacko CW: Persistence of *T. pallidum* and its significance in penicillin-treated seropositive late syphilis. BR J VENER DIS, London 47:339-347, Oct 1971.

## Syphilis - Therapy

Catterall RD: Advances in the treatment of sexually transmitted diseases. PRACTITIONER, London 207:516-523, Oct 1971.

Ekhom K: Tegretol in paroxysmal pain and paresthesia from spinal nerves (SWEDISH). NORD MED, Stockholm 86:1323-1324, Nov 11, 1971.

Heinke E: Thiamphenicol in the treatment of venereal diseases. BR J VENER DIS, London 47:379, Oct 1971.

Frishman MP, Bron BZ, Nakonechnaya ZS: Continuous penicillin therapy of patients with infectious syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 44:52-57, Sep 1970.

Kagan MZ, Frigo IV, Novikova SI: Repeated syphilis infection after treatment by a permanent method (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:76-79, Sep 1971.

Kalugin VV, Roitshtein BI, Penner GG: Hyaluronidase activity as a factor of vascular permeability in patients with syphilis during treatment (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:56-60, Oct 1971.

Khamidov SH: Immediate results of bicillin-5 treatment of patients with infectious forms of syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:41-44, Aug 1971.

*Abstracted

Khidyrov KHN, Khamidov SH: Three cases of resistance to antisyphilitic treatment (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 44:57-59, Sep 1970.

*Lebioda J, Budzanowska E: Unsuccessful treatment of early symptomatic syphilis following oral administration of detreomycin, erythromycin and oxyterracin (POLISH). PRZEGL LEK, Krakow 27:469-472, 1971.

Reisner H: Therapy of syphilitic diseases of the nervous system (GERMAN). BIBL PSYCHIATR NEUROL, Basel 139:418-434, 1969.

Smithurst BA: Penicillin therapy in 44 cases of primary and secondary syphilis. MED J AUST, Sydney 2:248-250, Jul 31, 1971.

Studnitsin AA, Reznikova LS, Karagezian LA: Pathogenesis and treatment of seroresistant syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:47-52, Jun 1971.

*Warrell DA, Perine PL, Bryceson AD, et al: Physiologic changes during the Jarisch-Herxheimer reaction in early syphilis. A comparison with louse-borne relapsing fever. AM J MED, New York 51:176-185, Aug 1971.

Zajac W: Experimental investigations on isolation of treponema Nichols strain of decreased sensitivity to penicillin (POLISH). POL TYG LEK, Warszawa 26:1783-1785, Nov 15, 1971.



*Abstracted

# GONORRHEA

## Clinical

ACUTE GONOCOCCAL PERIHEPATITIS (FITZ-HUGH-CURTIS SYNDROME) (GERMAN). R. Amman, O. Zehender, S. Jenny, and G. Bass–Medizinische Universitats-Poliklinik, Kantonsspital, Ramistr. 100, CH-8006 Zurich, Switzerland. DTSCH MED WOCHENSCHR (Stuttgart) 96:1515-1519, September 24, 1971.

English summary: "Acute perihepatitis is a rare, and in Europe, little known complication of genital gonorrhea which occurs almost exclusively in young women. The disease picture, which was observed in five patients during one year, mimics acute gall bladder disease. It is characterized by acute upper abdominal pain with pain referred to the right shoulder and signs of peritoneal irritation in the right upper abdominal quadrant. In all patients there was an adnexitis pointing to the diagnosis. In addition, gonococci could be identified in urogenital secretions in four cases. In four cases after successful treatment with penicillin typical "violin string" adhesions around the liver could be demonstrated at laparoscopy."

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GONOCOCCAL ARTHRITIS IN TWO PATIENTS WITH ACTIVE LUPUS ERYTHEMATOSUS. A DIAGNOSTIC PROBLEM. John S. Edelen, Michael D. Lockshin, and E. Carwile LeRoy–Department of Medicine and The Edward Daniels Faulkner Arthritis Clinic, Presbyterian Hospital, New York, New York. ARTHRITIS RHEUM (New York) 14:557-559, September-October 1971.

Authors' abstract: Two patients with active systemic lupus erythematosus (SLE) developed polyarthritis which was documented to be due to gonococcal infection. One patient simultaneously had LE cells and intracellular diplococci in her synovial fluid. Similarities and differences between SLE and gonococcal arthritis are discussed. The coincidence of SLE and gonococcal arthritis reemphasizes bacteremias as a curable cause of polyarthritis in patients with SLE.

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GONOCOCCAL TONSILLAR INFECTIONS. Anne Bro-Jorgensen and Tage Jensen–Municipal Clinic for Venereal Diseases, Tietgensgade 31, Copenhagen, Denmark. BR MED J (London) 4:660-661, December 11, 1971.

Authors' summary: *Neisseria gonorrhoeae* were cultured from tonsillar swabs in six men and six women out of 161 consecutive, unselected, Danish patients (95 men and 66 women) suffering from urogenital or rectal gonorrhea. Gonococci were found in the tonsils in only one out of 49 foreign men with gonorrhea. Eleven of the Danish patients admitted orogenital contact at their most recent intercourse. The gonococcal complement fixation test was negative in all except two cases. Standard single-dose treatment [oral ampicillin 2g, probenicid 1g] cured the urogenital and rectal infections promptly but failed to cure the tonsillar infection in five cases, and in recalcitrant cases the organisms were demonstrable for some months.

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DIAGNOSIS OF GONORRHEAL INFECTION BY CULTURE OF THE EXTERNAL EAR CANAL IN THE NEWBORN. John S. Scanlon–Boston Hospital for Women, Lying-in Division, 221 Longwood Avenue, Boston, Massachusetts 02215. CLIN PEDIATR (Philadelphia) 10:528-529, September 1971.

Case report is presented which illustrates the use of culture material from the external ear canal in diagnosing gonorrheal colonization of a newborn and gonorrheal infection in the mother. At 30 minutes of age, grunting, flaring and retractions were observed. A chest film was consistent with the respiratory distress syndrome. At two hours of age an umbilical artery catheter was inserted. At this time cultures of blood, nose, throat, gastric aspirate and external ear canal were obtained because of and prior to the commencement of penicillin and kanamycin prophylactic therapy for the arterial catheter. At 48 hours of age the ear canal culture grew *Neisseria gonorrhoeae;* culture of the mother's lochia also produced *N. gonorrhoeae.* At no time was there evidence of ophthalmic infection.

Author states it was previously suggested that culture of the external ear canal in the newborn be a reflection of a diagnostic fluid and vaginal v-lova be used as a routine diagnostic procedure for suspected intrauterine sepsis. The use of this technique is now urged for suspected infections of the birth canal, such as gonorrhea, listeria, monocytogenes group A and non-group-A beta-hemolytic streptococci, which may cause morbidity for both infant and mother.

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NONVENEREAL TRANSMISSION OF GONOCOCCAL INFECTIONS TO CHILDREN. William B. Shore and Jerry A. Winkelstein—(Dr. Winkelstein) Department of Pediatrics, Johns Hopkins Hospital, Baltimore, Maryland 21205. J PEDIATR (St. Louis) 79:661-663, October 1971.

A high incidence of gonorrhea is found in the general population of southwestern Alaska. Concurrently, an unusually high incidence of gonococcal infections has been observed in young children. At the Alaska Native Hospital in Bethel, the charts of all patients between 6 weeks and 12 years of age with positive cultures for *N. gonorrhoeae* from any site taken from July 1, 1967 through June 30, 1970 were reviewed. Information regarding the household size and number of beds and sleeping arrangements of the children was obtained at the time of a home visit. The parents' medical records in Bethel and/or in their home villages were reviewed, also, for evidence of concurrent or recent gonorrhea. There were eight girls and six boys; one child was infected twice. It was felt that 7 of the 14 patients had contracted their gonococcal infections by indirect or nonvenereal contact. Three of these children had isolated gonococcal conjunctivitis without genital tract disease, which suggests that the disease had been transmitted via indirect contact or intermediary objects, such as bedclothes or hands, rather than by direct sexual contact.

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GONOCOCCAL INFECTIONS IN PREPUBERTAL CHILDREN. V. F. Burry and A. N. Thurn—Department of Pediatrics, University of Missouri School of Medicine, Kansas City, Missouri. MISSOURI MED (St. Louis) 68:691-692, September 1971.

Although prepubescent children with genital gonorrhea are uncommon, the symptoms of these infections in children are not remarkable different from those in the adult. A search of past records at the Children's Mercy Hospital from 1963 through 1970 revealed that there were 53 cases (15 boys, 38 girls) with a positive smear or culture or both for *Neisseria gonorrhoeae*. Thirty-one girls and five boys were less than 10 years of age and are the subjects of this report.

Without exception, all children presented with a vaginal or penile discharge. Dysuria was the second most common symptom but occurred only in two boys and eight girls. Significant swelling of the glans penis was present in three of the five males. Although many of the girls had moderate irritation and erythema of the vulva, none had infected Bartholin's glands. Urinary frequency, pruritus and vaginal bleeding were less common and inconsistent findings. Four girls had fever associated with complications of their primary genital infection; three of these had abdominal findings compatible with peritonitis.

A history of definite sexual exposure was obtained for three girls and was suspected in three other cases. None of the boys had a history of sexual exposure or injury. There were numerous cases in which other members of a family had symptoms compatible with gonorrhea but no further information was available.

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A PRIMARY GONORRHOEAL ABSCESS OF THE SKIN OF THE PENIS (POLISH). Z. Ruszczak, W. Proszynska-Kuczynska, and P. Jedras—Klinika Dermatologiczna WAM, ul. Kniaziewicza 1/5, Lodz, Poland. PRZEGL DERMATOL (Warszawa) 58:627-629, September-October 1971.

English summary: "A case is described of a primary gonorrheal abscess of the skin at the proximal part of the dorsum of the penis in a 36-year-old man. It developed after sexual contacts of the man with his wife infected with

gonorrhea. The skin lesions were not preceded or accompanied by any symptoms due to invlovement of the urethra. By means of direct microscopy of the pus, culture fermentation, and peroxidase tests the causal role of gonococci in the development of the abscess was demonstrated. A complete cure was obtained after a 5-days' treatment with erythromycin (4.0 g) combined with oxytetracycline (5.0)."

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SYMPTOMATIC ANORECTAL GONORRHEA IN AN ADOLESCENT FEMALE. William T. Speck and Alan R. Lawsky—622 W. 168th St., New York, New York 10032. AM J DIS CHILD (Chicago) 122:438-439, November 1971.

Authors' abstract: A 16-year-old presented with rectal burning. Results of physical examination were normal except for exudate in the anal canal. *Neisseria gonorrhoeae* was cultured from the rectal exudate. The urethral, vaginal, and cervical cultures were negative for this organism. Although most patients with anorectal gonorrhea are asymptomatic, some will present with rectal burning, tenesmus, and painful defecation. The diagnosis depends primarily upon an awareness of the condition and its symptoms.

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RECOMMENDATIONS ON THE DIAGNOSIS OF GONORRHEA (Letter to Editor). Andrew H. Rudolph and Don W. Prinz—Center for Disease Control, Venereal Disease Branch, Atlanta, Georgia 30333. JAMA (Chicago) 218:448, October 18, 1971.

In a recent study by Cooke *et al* on 54 cases of gonococcal arthritis, it was reported that a gram-stained smear of urethral or cervical discharge was the procedure which most often led to a positive diagnosis. In a letter to the editor, authors discuss the lack of sensitivity and specificity of the gram-stained smear. Also, they stress that the search for possible sources of gonococcal infection should not be limited to the urogenital tract. Authors conclude that to enhance the probability of demonstrating a source of disseminated gonococcal infection, all areas of possible primary infection should be examined. This should include, in addition to a gram-stained smear of any discharge present, culture of the endocervical canal, anal canal, urethra, and pharynx on selective antibiotic medium.

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## Laboratory Diagnosis

VCN-INHIBITED STRAINS OF *Neisseria gonorrhoeae*. Robert C. Cross, Mary Beth Hoger, Richard Neibaur, Bernard Pasternack, and Frederick J. Brady—Arizona State Department of Health, 415 West Congress St., Tucson, Arizona 85701. HSMHA HEALTH REP (Washington, D.C.) 86:990-992, November 1971.

Authors' abstract: Using a direct plating technique for the processing of clinical specimens from 371 male patients, authors found that 8 percent of 165 men carried strains of *Neisseria gonorrhoeae* that were inhibited by the vancomycin, colistimethate, and nystatin (VCN) component of Thayer-Martin (T-M) medium. Specimens were plated on biplates, one-half of which contained VCN, the other half without VCN. Inhibition zones around 30 mg vancomycin disks placed on the original culture plates were larger for six partially or totally inhibited strains than for the normal wild strain of gonococcus.

Specimens from three female contacts were subsequently cultured, and a VCN-inhibited gonococcus was recovered in each instance. It has been suggested that in male patients, at least, a noninhibitory growth medium be used for detection of *N. gonorrhoeae* instead of, or in addition to, an inhibitory medium of the T-M type.

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## Therapy

THERAPY FOR INCUBATING SYPHILIS. EFFECTIVENESS OF GONORRHEA TREATMENT. Arnold L. Schroeter, Robert H. Turner, James B. Lucas, and William J. Brown—Venereal Disease Branch, Center for Disease Control, Atlanta, Georgia 30333. JAMA (Chicago) 218:711-713, November 1, 1971.

Authors' abstract: The epidemiologic control of syphilis would be greatly enhanced if gonorrhea therapy were simultaneously curative for incubating syphilis. In a cooperative study, schedules currently recommended by the Public Health Service for gonorrhea treatment in the male and female (aqueous penicillin G procaine, 2.4 and 4.8 million units, respectively) were evaluated in 127 patients exposed to infectious syphilis within a 30-day period. After a three-month clinical and serologic follow-up, these schedules were found to be 100 percent effective in aborting incubating syphilis. Of a control group of contacts treated with placebo who were exposed to infectious syphilis within 30 days preceding treatment, 30 percent developed syphilis. Consequently, aqueous penicillin G procaine in the dosage of 2.4 and 4.8 million units is curative therapy for patients with gonorrhea with coexisting incubating syphilis.

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USING ONE DOSE OF DOXYCYCLINE OR PENICILLIN TO TREAT MEN WITH GONOCOCCAL URETHRITIS. Stephen R. Jones and Harry E. Gilleland, Jr.—Editorial Assistant, Department of Medical Research and Development, William Beaumont General Hospital, El Paso, Texas 79920. HSMHA HEALTH REP (Washington) 86:849-854, September 1971.

Authors' abstract: A clinical evaluation was performed to compare the use of doxycycline with penicillin in the treatment of acute gonococcal urethritis. Fifty men were treated with single oral doses of 300 mg. of doxycycline (group D), and another 50 men were treated with 2.4 million units of procaine penicillin G intramuscularly (group P). Group D had a treatment failure rate of 38 percent compared with a rate of 10 percent for group P. Hence, the authors believe a single 300 mg. dose of doxycycline is not an acceptable alternate for penicillin therapy for acute gonococcal urethritis in men in the military community studied.

*In vitro* testing for penicillin and tetracycline sensitivities was performed on 32 gonococcal organisms isolated from the men in group P. The range of minimal inhibitory concentrations (MIC) for these organisms was from 0.005 units per ml. to 1.5 units per ml. penicillin and from 0.25 ug. per ml., to 2.0 ug. per ml. tetracycline. The average MIC for all 32 isolates was 0.41 units per ml. penicillin and 0.94 ug. per ml. tetracycline. The average MIC for the 27 isolates successfully treated with penicillin was 0.33 units per ml., whereas the average MIC for the five penicillin treatment failures was 0.82 units per ml. When the results of this study were compared with the results of a study made by Sokoloff and Goldstein in El Paso, Texas, in 1962, these figures indicated an increase in relative resistance to penicillin by *Neisseria gonorrhoeae* in this area. In no case was *Mimea* isolated; hence, the authors believe that this organism does not play a significant role in acute urethritis in this community.

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GENTAMICIN IN GONOCOCCAL URETHRITIS OF FILIPINO MALES: DOSAGE AND RESPONSE. Allison B. Felarca, Emiterio M. Laqui, and Leandro M. Ibarra—Department of Medicine, University of the Philippines—Philippine Genereal Hospital Medical Center, Taft Avenue, Manila, Philippines. J INFECT DIS (Chicago) 124 SUPPL: 287-292, December 1971.

Authors' abstract: Smears and cultures of urethral discharge, oxidase reactions, sugar fermentation, disk-susceptibility tests on gonococci, and gentamicin levels in serum were determined in a study of the efficacy and safety of gentamicin in the treatment of gonococcal urethritis in males. Successively higher doses of gentamicin were injected intramuscularly into Filipino male patients in whom a diagnosis of uncomplicated gonococcal urethritis was established. A total of 180 patients were treated; 160 of them were followed. A single intramuscular dose of 280 mg gave the most satisfactory results, with a dose range of 4.2-7.0 mg/kg per day (mean, 5.4). No immediate allergic reactions were noted, but two patients developed a delayed mild rash. No symptoms of ototoxicity were reported. No gonococcal strains resistant to gentamicin were encountered. Peak serum levels were found 30-60 minutes after injection. Only traces of the antibiotic were found 12 hours after injection. Gentamicin was found to be efficacious and safe for use in the treatment of uncomplicated gonococcal urethritis in Filipino males when given in a single intramuscular dose of 280 mg.

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EVALUATION OF TREATMENT OF GONORRHEA IN MALES WITH SINGLE DOSES OF MINOCYCLINE. William T. Tyson, Jr., Frank L. Roberts, and Malcolm H. Fine–Maternal and Child Health, Memphis-Shelby County Health Department, Memphis, Tennessee. J TENN MED ASSOC (Nashville) 64:773-777, September 1971.

Authors' summary: In an effort to discover a drug as effective (or almost as affective) and safer than penicillin in gonorrhea, a new tetracycline, minocycline, was administered in single oral doses of 250 mg to 250 gonorrhea patients. The investigation consisted of two parts: in the first, which included 123 patients, there was a culturally documented cure rate of 75 percent. The second, consisting of 127 patients, was conducted with the objective of determining the reason (or reasons) for failures in the first. The patients were divided into 3 groups: Group I returned for laboratory tests 48 hours after receiving the drug; Group II, 72 hours; and Group III, 96 hours. The cure rates were 86.1 percent, 72.3 percent, and 70 percent respectively. Data analysis appears to point to the relative resistance of the microorganism as a primary reason and to re-exposure of the patient as a secondary reason for failures. The over-all cure rate of 76.5 percent compares favorably with a cure rate of 81.8 percent in 88 male patients treated with 2.4 million units of aqueous procaine penicillin G given intramuscularly.

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NIFURATRONE AND GONORRHEA. Edgar B. Smith, John M. Knox, and William R. Holder–Department of Dermatology and Syphilology, Baylor College of Medicine, Houston, Texas 77025. ANTIMICROB AGENTS CHEMOTHER (Detroit) 40:267-269, 1970.

Nifuratrone, a new oral nitrofuran, was used to treat 52 adult males with acute gonorrhea. The men were treated with total doses of 400, 600, or 800 mg in two equally divided doses, the first taken at the time of diagnosis and the second 4 hours later. Patients were reevaluated clinically and bacteriologically at 48 hours and at 7 days. Only half of the first 10 patients were cured with a total dose of 400 mg. Increasing the dose to 600 mg raised the cure rate to 67 percent, but there was no further increase in the percentage cured when the dosage was increased to 800 mg. Nausea occurred frequently with higher doses. Authors comment that the most likely cause of the large number of treatment failures is individual variation in gastrointestinal absorption of the drug, and that better results might be expected with parenteral administration.

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ORAL AMPICILLIN IN UNCOMPLICATED GONORRHOEA. IV. COMPARISON OF PHARMACOLOGICAL AND CLINICAL RESULTS. Gunnel Eriksson–Department of Dermatology, Sodersjukhuset, Stockholm, Sweden. ACTA DERM VENEREOL (Stockholm) 51:467-475, 1971.

Author's abstract: As part of a project designed to investigate the efficacy of oral ampicillin in uncomplicated gonorrhea, the absorption and excretion of the clinically used dosage forms of oral ampicillin and penicillin G injection have been studied. Twenty-four healthy volunteers (12 of each sex) took part in the study carried out in a cross-over fashion. All conditions were as strictly standardized as possible with the subjects taking the preparations in a fasting state. The following dosage forms were used: 2 g of ampicillin in a single oral dose, the same dose with 1 g of probenecid, 2 g of ampicillin divided into 2 doses at an interval of 5 hours–always in 0.5 g tablets with 100 ml of water. Some of the volunteers were given 2 g of ampicillin with 250 ml of water or as 5 percent syrup. An intramuscular dose of 2.2 MIU of penicillin G was also tested. Antibiotic concentrations were determined by the cylinder plate method. Ampicillin plus probenecid gave approximately 2-3 times as high serum concentrations (21.2 ug/ml) as the divided dosage, and twice as high as the single oral dose. Increase in the water intake or the use of a syrup did not improve the serum concentrations significantly. The penicillin G injection gave serum concentrations lower than with ampicillin plus probenecid, but higher than with other dosage forms. The duration of penicillinemia was considerably longer than with the oral ampicillin dosages. The pharmacological findings are com-

pared with the clinical results, and required serum levels as well as the minimum duration of therapeutical levels are discussed.

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ONE-CAPSULE TREATMENT OF GONORRHEA WITH MINOCYCLINE. Harry Pariser and A. F. Marino—Venereal Disease Control Division, Norfolk Health Department, Norfolk, Virginia 23507. ANTIMICROB AGENTS CHEMOTHER (Detroit) 10:211-213, 1970.

Authors' abstract: Two hundred forty-eight men with acute gonorrhea were treated orally with a single capsule of 250 mg of minocycline, a tetracycline analogue. The diagnosis of gonorrhea was confirmed in all cases by Gram staining, by the Thayer-Martin culture technique, and by fluorescence staining. Follow-up was obtained on 217 cases (8.7%), all of whom had one to three post-treatment cultures taken from the discharge if present or in its absence from material obtained by scraping the urethra with a wire loop. Patients were followed for 2 to 35 days after treatment. No significant toxic reactions were noted. Depending upon criteria used, the "cure" rate was between 68.6 and 92.5 percent. This compares favorably with other drugs used in the treatment of gonorrhea.

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GONORRHEA IN WOMEN: TREATMENT WITH SULFAMETHOXAZOLE AND TRIMETHOPRIM. C. B. S. Schofield, G. Masterton, M. Moffett, and M. I. McGill—Department of Venereology, 67 Black Street, Glasgow, C.4, Scotland. J INFECT DIS (Chicago) 124:533-538, December 1971.

Authors' summary: After publication of a study describing the successful oral treatment of men suffering from uncomplicated gonorrhea with sulfamethoxazole-trimethoprim, this combination of drugs was used to treat women suffering from gonococcal urethritis and cervicitis. In every case, the diagnosis was confirmed by culture of *Neisseria gonorrhoeae*. Sulfamethoxazole-trimethoprim was given in the form of Bactrim (Roche); two tablets (each one containing 400 mg of sulfamethoxazole and 80 mg of trimethoprim) were taken night and morning for five days. One hundred and sixteen infections in 115 women were treated. Only two therapeutic failures were observed, and another two women were reinfected within a month of treatment, one on two occasions. Skin reactions to treatment were mild and infrequent. Hematologic investigation did not reveal any evidence of blood dyscrasias. This oral preparation can be recommended for the treatment of uncomplicated gonorrhea in women who can be relied upon to take it as directed.

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## Selected Bibliography

## Gonorrhea - Clinical


Anonymous: Criteria and techniques for the diagnosis of gonorrhea. MICH MED, East Lansing 70:1093-1096, Nov 1971.

Anonymous: Oculo-genital disease. MED J AUST, Sydney 2:785-786, Oct 16, 1971.

*Amman R, Zehender O, Jenny S, et al: Acute gonococcal perihepatitis (Fitz-Hugh-Curtis syndrome) (GERMAN). DTSCH MED WOCHENSCHR, Stuttgart 96:1515-1519, Sep 24, 1971.

Barr J, Danielsson D: Gonococcal sepsis (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4255-4260, Sep 15, 1971.

*Bro-Jorgensen A, Jensen T: Gonococcal tonsillar infections. BR MED J, London 4:660-661, Dec 11, 1971.

*Burry VF, Thurn AN: Gonococcal infections in prepubertal children. MISSOURI MED, St. Louis 68:691-692, Sep 1971.

Danielsson D, Molin L: The prostate as a reservoir for gonococci (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4267 PASSIM, Sep 15, 1971.

Doyle JO: Accidental gonococcal infection of the eyes in children. BR MED J, London 1:88, Jan 8, 1972.

*Edelen JS, Lockshin MD, LeRoy EC: Gonococcal arthritis in two patients with active lupus erythematosus. A diagnostic problem. ARTHRITIS RHEUM, New York 14:557-559, Sep-Oct 1971.

Falk V: Gonorrhea-salpingitis (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4250-4254, Sep 15, 1971.

Kohn SR, Shaffer JF, Chomenko AG: Primary gonococcal stomatitis (Letter to Ed.). JAMA, Chicago 219:86, Jan 1972.

Laluna F, Agus B: Gonococcal pharyngitis and arthritis (Letter to Ed.). ANN INTERN MED, Philadelphia 75:649, Oct 1971.

Lopatin AI, Kolesnikova NP: Gonorrheal-trichomonad urethritis in men (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:53-56, Jul 1971.

Mark A, Starck V: Gonorrhea in children (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4265-4266, Sep 15, 1971.

Mavrov II, Volodarskii VP: Clinical picture of combined gonorrheal-trichomonad urethritis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:84-86, Jun 1971.

Mesko M, Lipensky S, Smotlak A: Diagnosis, clinical importance and epidemiology of gonorrhea in pregnancy (CZECHOSLOVAKIAN). CESK GYNEKOL, Praha 37:50-51, Feb 1972.

Nicol CS: Gonorrhea in women (GERMAN). GYNAEKOL RUNDSCH, Basel 10:182-189, 1970.

Potapnev FV, Borovik VZ: Isolated affection of paraurethral ducts by gonorrheal infection (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:83-84, Jun 1971.

Rivoire J: Anal soft chancre and concomitant gonorrhea (FRENCH). BULL SOC FR DERMATOL SYPHILIGR, Paris 78:203, 1971.

*Rudolph AH, Printz DW: Recommendations on the diagnosis of gonorrhea (Letter to Editor). JAMA, Chicago 218:448, Oct 18, 1971.

*Ruszczak Z, Proszynska-Kuczynska W, Jedras P: A primary gonorrhoeal abscess of the skin of the penis. PRZEGL DERMATOL, Warszawa 58:627-629, Sep-Oct 1971.

*Scanlon JW: Diagnosis of gonorrheal infection by culture of the external ear canal in the newborn. CLIN PEDIATR, Philadelphia 10:528-529, Sep 1971.

Scopes J: Vomiting, diarrhoea, and infection. BR MED J, London 4:739-741, Dec 18, 1971.

*Shore WB, Winkelstein JA: Nonvenereal transmission of gonococcal infections to children. J PEDIATR, St. Louis 79:661-663, Oct 1971.


*Abstracted

*Speck WT, Lawsky AR: Symptomatic anorectal gonorrhea in an adolescent female. AM J DIS CHILD, Chicago 122:438-439, Nov 1971.

Sterkhova AG, Sergeeva VG: Experience in the work of the obstetric-gynecologic institutions at Izhevsk in the detection of gonorrhea (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:58-59, May 1971.

Stille W: Gonococcus septicemia (GERMAN). HAUTARZT, Berlin 22:501-502, Nov 1971.

Wierer A, Resl V: Case of gonorrheic inflamation of prepuce with negative findings on gonococci in the urethra (CZECHOSLOVAKIAN). CESK DERMATOL, Praha 46:253-255, Dec 1971.

## Gonorrhea
## Laboratory Diagnosis

Breen RM: Present trends in the laboratory diagnosis of *N. gonorrhoeae*. MED ANN DC, Washington, D.C. 40:638-639, Oct 1971.

Butovetskii LD, Bukharin OV, Bannikov VK: Immunological reactivity of patients with gonorrhea (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:56-59, 1971.

*Cross RC, Hoger MB, Neibaur R, et al: VCN–inhibited strains of *Neisseria gonorrhoeae*. HSMHA HEALTH REP, Washington, D.C. 86:990-992, Nov 1971.

Danielsson D: Gonorrhea diagnosis, laboratory diagnostic point of view (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4242-4250, Sep 15, 1971.

Grigor'ev VE, Grachev IUI, Zastenker FS: Treatment of gonorrheal and non-gonorrheal epididymitis with UHF electrical field. I. (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:69-73, 1971.

Krell L, Mohr J, Elste G: Diagnosis of gonorrhea with the use of laboratory methods, inclusive specific fluorescence antibody technic (FAT). I. Preparation of a specific gonococcus-antiserum (conjugate) and control with staining, cultural and biochemical methods (GERMAN). DTSCH GESUNDHEITSW, Berlin 26:1716-1719, Sep 2, 1971.

Mohr J, Krell L, Elste G: Diagnosis of gonorrhea with laboratory-technical methods, including the specific immunofluorescence test (FAT-fluorescence antibody technic). II. Preparation of immune serums against *Neisseria gonorrhoeae* and studies on sensitization and specificity after labelling (GERMAN). DTSCH GESUNDHEITSW, Berlin 26:1758-1761, Sep 9, 1971.

Pekowski M, Szyszymar B: Cultures of *Neisseria gonorrhoeae* on media with addition of hen's egg (POLISH). PRZEGL DERMATOL, Warszawa 58:273-278, May-Jun 1971.

Selwyn S, Oates JK: Specimens from the female genital tract. BR MED J, London 4:559-560, Nov 27, 1971.

Wagner V, Kvicera J: Transport media with antibiotics for neisseria (CZECHOSLOVAKIAN). CESK DERMATOL, Praha 45:23-30, Jan 1970.

Yatsukha MV: Use of transport media in the cultural diagnosis of gonorrhea (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:58-61, Nov 1971.

## Gonorrhea - Therapy

Anonymous: Antibiotic resistant gonococci. BR MED J, London 4:696-697, Dec 18, 1971.

Anonymous: Current therapy of gonorrhea. JAMA, Chicago 218:714-717, Nov 1, 1971.

Arap S: Clinical trials with ampicillin in the treatment of gonorrheal urethritis in males (PORTUGUESE). HOSPITAL, Rio de Janeiro 77:1173-1177, Apr 1970.



*Abstracted

Bowszyc J, Wiewiorkowska L, Filipiuk J: Results of treatment of gonorrhea with penicillin in the light of clinical observations and laboratory examinations (POLISH). PRZEGL DERMATOL, Warszawa 58:715-721, Nov-Dec 1971.

Bowszyc J, Wiewiorkowska L, Filipiuk J: Investigations of blood penicillin levels in patients with gonorrhea treated according to various schemes of treatment (POLISH). PRZEGL DERMATOL, Warszawa 58:595-599, Sep-Oct 1971.

Catterall RD: Advances in the treatment of sexually transmitted diseases. PRACTITIONER, London 207:516-523, Oct 1971.

Danielsson D: The sensitivity of gonococci to different antibiotics (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4273-4277 PASSIM, Sep 15, 1971.

*Eriksson G: Oral ampicillin in uncomplicated gonorrhoea. IV. Comparison of pharmacological and clinical results. ACTA DERM VENEREOL, Stockholm 51:467-475, 1971.

Fedorova LG, Marchenko LO, Gulitskaia NI: Results of a study of gonococcal sensitivity to several antibiotics (RUSSIAN). ANTIBIOTIKI, Moskva 16:949-952, Oct 1971.

*Felarca AB, Laqui EM, Ibarra LM: Gentamicin in gonococcal urethritis of Filipino males: Dosage and response. J INFECT DIS, Chicago 124 SUPPL: 287-292, Dec 1971.

Hammar H, Liden S, Ohman S: Treatment of uncomplicated gonorrhea with a one time dose of doxycycline (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4278-4279, Sep 15, 1971.

Hansson H, Juhlin I: Therapy and therapy-control in uncomplicated gonorrhea (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4268-4272, Sep 15, 1971.

Heinke E: Thiamphenicol in the treatment of venereal diseases. BR J VENER DIS, London 47:379, Oct 1971.

Jadassohn W: Chloromycetin failure in gonorrhea. A special case (GERMAN). DERMATOLOGICA, Basel 143:43-44, 1971.

*Jones SR, Gilleland HE Jr.: Using one dose of doxycycline or penicillin to treat men with gonococcal urethritis. HSMHA HEALTH REP, Washington, D.C. 86:849-854, Sep 1971.

Landgren BM, Molin L, Nystrom B: Experiences with gonorrhea treatment in 1969 (SWEDISH). S AFR MED J, Cape Town 45:4897-4901, Aug 21, 1971.

Mayer-Rohn J: The current state of treatment of gonorrhoea with reference to decreased penicillin sensitivity of *Neisseria gonorrhoeae*. BR J VENER DIS, London 47:379, Oct 1971.

Neumann HH, Baecker JM: Treatment of gonorrhea. Penicillin or tetracyclines. JAMA, Chicago 219:471-474, Jan 24, 1972.

Newman BG: Tetracycline in pregnancy (Letter to Ed.). ANN INTERN MED, Philadelphia 75:648-649, Oct 1971.

Norton-Brandao F: Experience in the treatment of gonorrhoea with penicillin. BR J VENER DIS, London 47:379, Oct 1971.

*Pariser H, Marino AF: One-capsule treatment of gonorrhea with minocycline. ANTIMICROB AGENTS CHEMOTHER, Detroit 10:211-213, 1970.

Potapnev FV: Antibiotic-resistant forms of gonorrheal infection (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:51-52, 1971.

Rodrigues V, Vasconcellos JM De: Use of single doses of thiamphenicol in gonococcal urethritis (PORTUGUESE). REV BRAS MED, Rio de Janeiro 28:288-290, Jun 1971.

*Schofield CB, Masterton G, Moffett M, et al: Gonorrhea in women: Treatment with sulfamethoxazole and trimethoprim. J INFECT DIS, Chicago 124:533-538, Dec 1971.

Schofield CB, Moffett M, Masterton G: Bactrim (trimethoprim-sulfamethoxazole) treatment of female blennorrhagia (SPANISH). REV COLOMB OBSTET GINECOL, Bogota 22:269-273, Jul-Aug 1971.

*Schroeter AL, Turner RH, Lucas JB, et al: Therapy for incubating syphilis. Effectiveness of gonorrhea treatment. JAMA, Chicago 218:711-713, Nov 1, 1971.

*Smith EB, Knox JM, Holder WR: Nifuratrone and gonorrhea. ANTIMICROB AGENTS CHEMOTHER, Detroit 10:267-269, 1970.

Svindland H: Treatment of gonorrhea with sulphamethoxazole-trimethoprim (Bactrim) (NORWEGIAN). TIDSSKR NOR LAEGE-FOREN, Oslo 91:1753-1755, Aug 30, 1971.

Turanova EN, Skuratovich AA, Voskresenskaya GA: Monomycin in treating gonorrhea in women (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:59-62, 1971.

*Tyson WT Jr., Roberts FL, Fine MH: Evaluation of treatment of gonorrhea in males with single doses of minocycline. J TENN MED ASSOC, Nashville 64:773-777, Sep 1971.

Ullman S, Niordson AM, Zachariae H: Trimethoprim-sulphamethoxazole in gonorrhoea. ACTA DERM VENEREOL, Stockholm 51:394-396, 1971.

Varshavskaya MN, Frai LI, Shcherbakova AK: Clinico-laboratory data on penicillin therapy of patients with gonorrhea (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:53-56, 1971.

Willcox RR: Treatment practices in gonorrhoea in the United Kingdom. BR J VENER DIS, London 47:380, Oct 1971.



*Abstracted

# MINOR VENEREAL AND RELATED DISEASES

AMNIONITIS AND *T-strain mycoplasmemia.* Eliahu Caspi, Emil Herczeg, Feiga Solomon, and David Sompolinsky—Departments of Obstetrics and Gynecology, Pathology, and Microbiology, Asaf Harofe Government Hospital, Tel-Aviv University Medical School, Tel-Aviv, Israel. AM J OBSTET GYNECOL (St. Louis) 111:1102-1106, December 15, 1971.

Authors' summary: A 32-year-old woman was admitted during the seventh month of her first pregnancy which was achieved by insemination with donor semen. A twin pregnancy was diagnosed, and the water bag of one of the fetuses had ruptured spontaneously. The woman was afebrile during 7 days with penicillin-ampicillin treatment. Thereafter she developed symptoms of generalized infection. Two successive blood cultures were positive for *T-strain mycoplasma.* After delivery the same organism was isolated from the blood of one of the infants and from throat and vulva smears from the other one, as well as from the urine of the sperm donor, while a urethral smear from the patient's husband was negative. Histologic examination showed focal purulent amnionitis of the water bag that was intact until delivery. This is the second reported case of *T-strain mycoplasmemia* which demonstrates the potential virulence of this organism.

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OBSERVATIONS ON CANDIDAL VAGINITIS: VAGINAL pH, MICROBIOLOGY, AND CYTOLOGY. F. Peeters, R. Snauwaert, J. Segers, J. van Cutsem, and W. Amery—Department of Obstetrics and Gynaecology, St. Elizabeth Ziekenhuis, Turnhout, Belgium. AM J OBSTET GYNECOL (St. Louis) 112:80-86, January 1972.

Authors' abstract: A group of patients with candidal vaginitis was compared with a group of patients without signs or symptoms of vaginitis. In patients with vaginitis, mean vaginal pH was higher than in the control patients, and this was mainly due to high pH values in a minority of these patients. In the group of patients with vaginitis, the number of colonies of Doderlein's bacillus was found to be inversely correlated with the number of colonies of Candida ssp. Of all pathogens clutured, only Candida ssp. were found in significantly greater numbers in the vaginitis group than in control patients. Criteria for selecting the drug of choice for the treatment of vaginal moniliasis are outlined.

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*Corynebacterium vaginale.* AN ANALYSIS OF 68 ISOLATIONS. Catherine Deane, Clotilde D. Smith, Theodore Fykes, and Calvin C. Sampson—Bacteriology Laboratory, Freedmen's Hospital, Howard University, Washington, D.C. 20001. MED ANN DC (Washington, D.C.) 41:4-5, January 1972.

During the period 1966 through 1969, a total of 413 cultures were perform[illegible] and *Corynebacterium vaginale* was isolated in pure and mixed cultures from 68 patients. Patients ranged in age from 18 to 56; the majority were in the child-bearing age and came in with vaginal discharge or leukorrhea. In these cases there appeared to be a definite correlation between the patients' signs and symptoms, isolation of the organism in pure and mixed cultures, and the disappearance of symptoms following specific antibiotic therapy. In random cultures it was noted that *C. vaginale* is not of the normal vaginal flora and when found is probably pathogenic. The bacteriology and biochemical and sensitivity reactions have been detailed.

*Haemophilus influenzae* INFECTIONS OF THE GENITAL TRACT. R. J. Farrand–Hope Hospital, Salford, England. J MED MICROBIOL (London) 4:357-358, August 1971.

Non-capsulate *Haemophilus influenzae* is a potential pathogen of mucous membranes, commonly associated with infections in the bronchi, sinuses, and conjunctivae. Two cases are presented which indicate that the mucous membranes of the genital tract may also be vulnerable, and that *H. influenzae* should be considered when purulent material from gynecological patients is examined. A case of acute vaginitis and a case of acute pyosalpinx caused by *H. influenzae* are described and the possible route of infection of the genital tract and aspects of tissue susceptibility are discussed.

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MYCOPLASMAS IN HUMAN GENITO-URINARY PATHOLOGY. P. Altucci, G. L. Varone, G. Catalano, and L. Manguso–1st Institute of Medical Clinic, Naples University, Naples, Italy. PATHOL MICROBIOL (Basel) 37:89-98, 1971.

Authors' abstract: Results about isolation of mycoplasma and specific serological diagnosis in male and female patients, normal or suffering from various genital diseases, are reported. In females, large colony mycoplasmas (mostly) *M. hominis 1)* and T-strains have been isolated in similar proportion both from healthy women and from patients either in pregnancy with preceding abortions or suffering from various genital diseases. In males, large colony mycoplasmas *(M. hominis 1)* and T-strains have also been isolated from several of the patients suffering from acute or subacute non-gonococcal urethritis. T-strains have also been isolated from healthy subjects. Corresponding specific antibodies have been found only in a small percentage of male and female cases. It is concluded that mycoplasmas *(M. hominis 1)* and T-strains are usually present as saprophytes in the genital tract. They may sometimes act as pathogens. They may also be etiologically implicated in male non-gonococcal urethritis.

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T-STRAINS OF MYCOPLASMA IN BRONCHOPNEUMONIC LUNGS OF AN ABORTED FETUS. N. Romano, R. Romano, and F. Carollo–Instituto di Igiene dell'University di Palermo, Via del Vespro 113 (Policlinico), 90127, Palermo, Italy. N ENGL J MED (Boston) 285:950-952, October 21, 1971.

Various types of mycoplasma have been found associated with spontaneous abortions during the last few years. Clinical conditions in which they have been observed include premature deliveries with accompanying maternal febrile illness, premature rupture of placental membranes, and cases with a history of recurrent reproductive failure. Case is presented to verify the effect of mycoplasmas infecting aborted and malformed fetuses. In the aborted fetus described, T-strains were found in the lung, heart, placenta and maternal vaginal swab. An increase of antibodies against these organisms was observed in the post-partum serum obtained from the mother four weeks after the first sample. This finding suggests that a recent T-strain infection occurred in the mother, an observation that, along with the histopathology, indicates a possible spread of T-strains into fetal tissues, including the lung where bronchopneumonia was observed.

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FEMALE GENITAL TRACT INFECTION WITH TRIC AGENTS IN A TRACHOMATOUS POPULATION. M. M. H. Shaaban, A. A. Shokeir, I. A. Wafsy, and M. K. Al-Hussaini–Department of Obstetrics and Gynaecology, Faculty of Medicine, Assiut University, Assiut, U. A. R. J EGYPT MED ASSOC (Cairo) 54:331-337, 1971.

Authors' summary: TRIC agents were isolated from the genital tracts of 10 women out of the 51 studied. These comprised four isolates from a group of 30 women having evident cervical and/or vaginal lesions and three out of the six mothers of infants having ophthalmia neonatorium due to TRIC agent. Three isolates were obtained from 15 control women having no evident gynaecological abnormality. TRIC agents were detected by egg cultures and inclusion bodies were demonstrated in only one case which was suffering from epidermoid carcinoma of the cervix.

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TRICHOMONAL URETHRITIS IN THE MALE. Joseph N. Ward—Department of Urology, St. Luke's Hospital Center, New York, New York. MOD TREAT (New York) 7:1015-1016, September 1970.

Trichomonas is an uncommon cause of urethritis in the male. However, if trichomonads are specifically looked for in a urethral discharge, the incidence of diagnosis may be increased. Commonly, there is a history of a white, sometimes frothy, urethral discharge. Associated with this may be a urethral pruritis, dysuria or even urgency. The associated urinary symptoms will be related to the extent the trichomonads have invaded the prostate, seminal vesicles or the bladder itself. Trichomonal infection has been known to cause even hemospermia. Laboratory diagnosis is based on urethral smears and/or centrifuged urine. Treatment consists of metronidazole 250 mg twice a day for 10 days. At the end of this time, a urethral smear should be reexamined. A second course of metronidazole may be necessary. Metronidazole is contrainicated for patients with a history of blood dyscrasias or who have active organic diseases of the central nervous system.

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ERRORS IN THE DIAGNOSIS OF *Trichomonas vaginali* INFECTION AS OBSERVED AMONG 119[illegible] PATIENTS. Gizella Perl—829 Park Avenue, [illegible] York, New York 10021. OBSTET GYNECOL (New York) 39:7-9, January 1972.

Author's abstract: In this series of 1199 women with vaginitis, errors in diagnosis due to false-positive and false-negative findings when the Papanicolaou smear was used as the criterion for diagnosing and treating *Trichomonas vaginalis* infestation reached 48.4 percent. The Papanicolaou smear, therefore, should not be relied upon for the diagnosis of *Trichomonas vaginalis.* Confirmation by smear and culture should be obtained before treatment.

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## Selected Bibliography

## Minor Venereal and Related Diseases


Anonymous: Trichomonacides: Nitrimidazine versus metronidazole. DRUG THER BULL, London 9:103-104, Dec 17, 1971.

Altucci P, Varone GL, Catalano G, et al: Mycoplasmas in human genito-urinary pathology. PATHOL MICROBIOL, Basel 37:89-98, 1971.

Arutunova IA, Martynova VR, Shatkin AA: A comparative study of sensitivity of microorganisms of psittacosis-venereal lymphogranuloma-trachoma (PLT) group to sulfanilamides and antibiotics. I. Effect of sodium sulfapyridazine in ovo (RUSSIAN). ANTIBIOTIKI, Moskva 16:735-737, 1971.

Broccali G, De Carneri I: Studies on the velocity of action of trichomonocidal drugs (SPANISH). GINECOL OBSTET MEX, Mexico 30:481-490, Nov 1971.

*Caspi E, Herczeg E, Solomon F, et al: Amnionitis and *T-strain* mycoplasmemia. AM J OBSTET GYNECOL, St. Louis 111:1102-1106, Dec 15, 1971.

Catterall RD: Advances in the treatment of sexually transmitted diseases. PRACTITIONER, London 207:516-523, Oct 1971.

*Deane C, Smith CD, Fykes T, et al: *Corynebacterium vaginale.* An analysis of 68 isolations. MED ANN DC, Washington, D.C. 41:4-5, Jan 1972.

*Farrand RJ: *Haemophilus influenzae* infections of the genital tract. J MED MICROBIOL, London 4:357-358, Aug 1971.

Fayette M: Action of nifuratel on lower genital infections (FRENCH). J MED LYON, Lyon 52:1445-1451, Nov 5, 1971.

Fegerl H, Streli E: Trichomoniasis urogenitalis (GERMAN). WIEN MED WOCHENSCHR, Vienna 120:133-137, Feb 21, 1970.

Gaudefroy M, Coliche D: Two cases of vaginitis due to an as yet unknown parasite in gynecologic pathology (FRENCH). J SCI MED LILLE, Lille 89:301-302, Aug-Sep 1971.

Gobert JG, Savel J: Morphological and biological modifications of *Trichomonas vaginalis* cultured in the presence of agar (FRENCH). C R SOC BIOL, Paris 165:73-77, 1971.

Heiss H: Clinical evaluation of medicines active against *Trichomonas vaginalis* in a double-blind study (GERMAN). WEIN MED WOCHENSCHR, Vienna 121:823-824, Nov 13, 1971.

Hofstetter A, Schmiedt E: Mycoplasma in infections of the genitourinary tract (GERMAN). UROLOGE, Berlin 9:200-204, Jul 1970.

Horvath A, Galgoczy J, Kovacs E: Venereologic importance of mycoplasmas (HUNGARIAN). ORV HETIL, Budapest 112:1820-1822, Aug 1, 1971.

Karwan A, Jordan K, Plonski J: Bacteriologic pattern of the vagina and the course of puerperium (POLISH). GINEKOL POL, Lodz 42:1325-1331, Nov 1971.

Korik LM: Effectiveness of specific immunotherapy in torpid forms of urogenital trichomoniasis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:79-82, Sep 1971.

Kotov MG: Treatment of balanoposthitis by Lugol's solution with glycerin (RUSSIAN). UROL NEFROL (MOSK), Moskva 36:59-60, Jan-Feb 1971.

Lam Salinas P: Tinidazol (CP, 12-574) in the treatment of vaginal trichomoniasis (SPANISH). REV CLIN ESP, Madrid 123:173-176, Oct 31, 1971.

Leppaluoto P: The coitus-induced dynamics of vaginal bacteriology. J REPROD MED, Chicago 7:169-175, Oct 1971.

Lewis JF, O'Brien SM, Ural UM, et al: *Corynebacterium vaginale* vaginitis. Review of the literature and presentation of data based on vaginal cultures from 1,008 patients. AM J OBSTET GYNECOL, St. Louis 112:87-90, Jan 1, 1972.




*Abstracted

Liubimova LK, Korik LM: Some biochemical and hematological indices in the dynamics of the specific treatment of trichomoniasis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:63-66, 1971.

Lopatin AI, Kolesnikova NP: Gonorrheal-trichomonad urethritis in men (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:53-56, Jul 1971.

Mattos O, Jungueira JG: Venereal granuloma (PORTUGUESE). REV BRAS MED, Rio de Janeiro 28:265, Jun 1971.

Mavrov II, Volodarskii VP: Clinical picture of combined gonorrheal-trichomonad urethritis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:84-86, Jun 1971.

Metze H, Bergen A Van: Trichomonas infections in premature infants (GERMAN). ARCH KINDERHEILKD, Stuttgart 183:334-338, Nov 1971.

Orley J: Klion therapy of trichomoniasis in young girls and their families (HUNGARIAN). ORV HETIL, Budapest 113:28-29, Jan 2, 1972.

*Peeters F, Snauwaert R, Segers J, et al: Observations on candidal vaginitis: Vaginal pH, microbiology, and cytology. AM J OBSTET GYNECOL, St. Louis 112:80-86, Jan 1, 1972.

*Perl G: Errors in the diagnosis of *Trichomonas vaginalis* infections as observed among 1199 patients. OBSTET GYNECOL, New York 39:7-9, Jan 1972.

Raut M: Clinicopathological study of leucorrhoea. J INDIAN MED ASSOC, Indianapolis 56:7-9, Jan 1, 1971.

*Romano N, Romano F, Carollo F: T-strains of mycoplasma in bronchopneumonic lungs of an aborted fetus. N ENGL J MED, Boston 285:950-952, Oct 21, 1971.

Schirren H, Sturde HC: Reiter's disease with "symptomatic" tongue exfoliation (GERMAN). HAUTARZT, Berlin 21:283-284, Jun 1970.

*Shaaban MM, Shokeir AA, Wasfy IA, et al: Female genital tract infection with TRIC agents in a trachomatous population. J EGYPT MED ASSOC, Cairo 54:331-337, 1971.

Shmelev KA: Nitasolum-induced bullous toxicodermia (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:75-77, May 1971.

Sukhodolskaya AE, Rudenko AV, Chaikovskaya VL: Isolation of L-form bacteria and mycoplasma in inflammatory urologic diseases (RUSSIAN). VRACH DELO, Kiev 12-15, Jun 1971.

Turanova EN, Potapnev FV, Iatsukha MV: Comparative evaluation of the effectiveness of chlomisole, flagyl and trichopole in treating trichomoniasis in women (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:51-55, Aug 1971.

*Ward JN: Trichomonal urethritis in the male. MOD TREAT, New York 7:1015-1016, Sep 1970.

Wille P: Colpitis emphysematosa as a special form of development of trichomoniasis (GERMAN). ZENTRALBL GYNAEKOL, Leipzig 93:790-808, June 5, 1971.

*Abstracted

# RESEARCH AND EVALUATION

CURRENT CONCEPTS OF THE MORPHOLOGY AND BIOLOGY OF *T. pallidum* BASED ON ELECTRON MICROSCOPY. N. M. Ovcinnikov and V. V. Delektorskij—Department of Microbiology, Central Research Institute of Skin and Venereal Diseases, Ministry of Health, Moscow, USSR. BR J VENER DIS (London) 47:315-328, October 1971.

Authors' summary: (1) Electron microscopy of *T. pallidum* has revealed a number of structural features: a sheath, a three-layered outer wall, a cytoplasmic membrane also consisting of three layers, superficial and deep bundles of fibriles, a nuclear vacuole, mesosomes, and ribosomes. Each of these formations has a complex structure. (2) Transverse fission is the main mode of reproduction of *T. pallidum*. Under adverse conditions spherulation and encystment may be observed. The possibility of sexual reproduction cannot be excluded. (3) The structure and motility of cysts, and the circumstances of their appearance, prove that encystment is an adaptive mechanism of survival. (4) Under the action of penicillin or antiserum, *T. pallidum* in culture produces L-forms, which reverse to the original spiral forms if transferred to media lacking these agents. (5) In chancre tissues, *T. pallidum* may be located both inside and outside cells. Macrophages, plasma cells, endothelial cells, monocytes, and polymorphonuclear leucocytes actively participate in phagocytosis. As a rule, phagocytosis is not brought to completion (endocytobiosis predominates). (6) Penicillin enhances cellular activity; after an injection complete phagocytosis may be demonstrated. (7) The persistence of positive serological reactions may be explained by the prolonged presence of unaltered treponemes within plasma cells.

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IMMUNOELECTROPHORETIC STUDIES OF IMMUNOGLOBULINS IN EARLY ACQUIRED SYPHILIS (POLISH). Mieczyslaw Gibowski and Julian Rosner—Klinika Dermatologiczna AM, ul. Przybyszewskiego 49, Poznan, Poland. PRZEGL DERMATOL (Warszawa) 58:708-713, November-December 1971.

English summary: "The authors investigated the behavior of serum immunoglobulins of 79 patients with early acquired syphilis using the method of electrophoresis. In a large percentage of patients increased amounts of IgG, IgM, and IgA were found as early as at the earliest stage of syphilis (seropositive primary syphilis). As the disease advanced the amounts of the serum immunoglobulins, especially of IgG and IgM, increased. In patients with asymptomatic early syphilis, changes in amounts of immunoglobulins were relatively less pronounced."

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REACTIVITY OF TREPONEMAL AND NONTREPONEMAL TESTS WITH CEREBROSPINAL FLUID FROM SYPHILITIC CHIMPANZEES. William P. Duncan and U.S. Grant Kuhn III—Venereal Disease Research Laboratory, Center for Disease Control, Atlanta, Georgia 30333. J INFECT DIS (Chicago) 125:61-65, January 1972.

Authors' abstract: Samples of cerebrospinal fluid (CSF) and serum collected over a period of approximately four years from four chimpanzees with *Treponema pallidum* were studied. The VDRL slide test, *Treponema pallidum* immobilization (TPI), and several fluorescent antibody procedures were used in the examination of the cerebrospinal fluid. Sera were examined by the VDRL slide and fluorescent treponemal antibody absorption (FTA-ABS) tests. None of the [illegible] showed reactivity in

the CSF before inoculation. The immunofluorescence techniques usually detected reactivity in the CSF before the VDRL slide test. The TPI-200 test was considerably less reactive with CSF than either the immunofluorescence procedures or the VDRL slide test. Reactivity of the immunofluorescence and VDRL slide tests with the CSF was delayed and weaker than reactivity of these tests with serum. Results suggest that evaluation of the FTA technique with CSF of humans might lead to use of an FTA test in diagnosis of syphilis of the central nervous system of humans.

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*In vitro* ANTIMICROBIAL ACTIVITY OF 6 [D(-) d-AMINO-p-HYDROXYPHENYL-ACETAMIDO] PENICILLANIC ACID, A NEW SEMISYNTHETIC PENICILLIN. Harold C. Neu and Elaine B. Winshell–Department of Medicine, College of Physicians and Surgeons, Columbia University, New York, New York 10032. ANTIMICROB AGENTS CHEMOTHER (Detroit) 10:407-410, 1970.

Authors' abstract: 6[D(-) d-Amino-p-hydroxyphenylacetamido] penicillanic acid, BRL 2333, is a broad-spectrum semisynthetic penicillin similar in structure and activity to ampicillin. It was found to be bactericidal at concentrations below 0.1 ug/ml against *Streptococcus pyogenes, Diplococcus pneumoniae,* and penicillin-susceptible strains of *Straphylococcus aureus.* BRL 2333 was bactericidal for approximately 70 percent of enterococci at 1 ug/ml. The majority of strains of *Escherichia coli, Proteus mirabilis,* and *Salmonella* were susceptible to less than 10 ug/ml. *Haemophilus* strains were inhibited by 0.5 ug or less per ml, as were strains of *Neisseria gonorrhoeae.* The strains of *Klebsiella, Enterobacter, Serratia,* and *Pseudomonas* tested were uniformly resistant to 250 ug or more of BRL 2333 per ml. Indole-positive *Proteus* strains were resistant. The activity of BRL 2333 was not reduced by serum, and appeared to be only 15 to 20 percent protein-bound. BRL 2333 was hydrolyzed by penicillinases of *S. aureus, E. Coli,* and *Pseudomonas.*

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MORPHOLOGICAL AND HISTOCHEMICAL CHANGES IN THE MUCOUS MEMBRANE OF THE UROGENITAL TRACT IN MIXED PROCESSES (RUSSIAN). V.G. Bilik and I.N. Khaidarly. VESTN DERMATOL VENEROL (Moskva) 45:50-53, May 1971.

English summary: "The studies were carried out in biopsy specimens collected from the vagina of women with trichomoniasis, gonorrhea and moniliasis with suspicion of neoplasm. In these studies it was established that in mixed diseases the process involved both the tectorial epithelium and connective tissue stroma of the mucous membrane. In trichomoniasis and gonorrhea, tissue structures of the mucosa showed marked increase in the epithelium and the mucous layer proper of Schick– and alcian-positive substances against the background of moderate reduction of RNA granules in the cytoplasm of cell elements. The majority of the Schick-positive structures was represented by substances of polysaccharide nature. In trichomoniasis and moniliasis, against the background of moderately manifest inflammatory reaction there was a marked increase of ribonucleic acid in cell elements, moderate increase of substances of polysaccharide nature, insignificant disorders in the activity of oxidative enzymes in the epithelium and connective tissue of the mucosa. In trichomoniasis, gonorrhea and moniliasis (one observation), in the presence of a well-manifest inflammatory process no significant depletion of RNA in cell elements could be found, and accumulation of Schick-positive material was insignificant. This appears to indicate an increased tissue immunity and reduction in the process of depolymerization of the main substance of the connective tissue. Thus, in the mixed processes studied histological changes are not very marked and histochemical substrates undergo insignificant changes. These results correspond to clinical data; it is in mixed diseases that asymptomatic forms are observed more frequently."

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SKIN RASHES WITH PENICILLIN THERAPY: CURRENT MANAGEMENT. Bernard B. Levine. N ENGL J MED (Boston) 286:42-43, January 6, 1972.

"Administration of penicillins and cephalosporins is associated with a variety of adverse

reactions—e.g., anaphylaxis, drug fever, Coombs-positive hemolytic reactions, agranulocytosis, interstitial nephritis and drug rashes. Of these, drug rashes are the most common. Urticarial erythematous or morbilliform (also termed maculopapular or exanthematic) eruptions are seen most often. More rarely associated with penicillin therapy are erythema nodosum, erythema multiforme and purpuric, eczematous or vesiculobullous eruptions. . . .Drug rashes occur in 1 to 7 percent of patient courses of penicillins and are responsible for a number of clinical problems."

Author reviews the known causes of skin rashes, as well as the present tests for penicillin allergy and the use of nonpenicillin antibiotics. Three to 9 percent of patients with no prior history of penicillin allergy are skin-test positive and it is in this group that the bulk of penicillin reactions will occur. Studies done by the author and those of Adkinson *et al* indicate that if skin testing is done on all patients about to be treated with penicillin, the incidence of allergic reactions can be markedly reduced.

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ACUTE PSYCHOTIC REACTION AFTER INJECTION OF PROCAINE PENICILLIN (FRENCH). Y. Moene, G. Aimard, M. -T. Perrenin, and G. Rambaud. J MED LYON (Lyon) 52:1323-1325, October 20, 1971.

Authors report the case of a 35-year-old man with chronic bronchitis with bronchiectasis following a severe asthma which appeared at age 5 years. For many years the patient had been treated with depot sulfamides and tetracylines; when his condition became more acute, intramuscular procaine penicillin was added to the therapy. Patient tolerated nine once-daily injections without incident. Immediately upon the tenth injection intense tachycardia appeared, along with a sensation of choking, hypersialosis, and ocular disturbances, including distorted vision. Mental disturbances included depersonalization, including marked religious ectasy; "I am God," he believed. The acute episode lasted 20 minutes followed by an anxiety that disappeared progressively. Penicillin therapy was discontinued and no further abnormal reactions were noted. Authors discuss whether the penicillin was responsible for the psychic disorders and conclude in the affirmative.

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## Selected Bibliography

## Research and Evaluation


Anonymous: Skin reactions to ampicillin. BR MED J, London 1:505-506, Feb 19, 1972.

Beckmann H: Exanthemas during ampicillin treatment (GERMAN). MUNCH MED WOCHENSCHR, Munich 113:1423-1429, Oct 22, 1971.

*Bilik VG, Khaidarly IN: Morphological and histochemical changes in the mucous membrane of the urogenital tract in mixed processes. VESTN DERMOTOL VENEROL, Moskva 45:50-53, May 1971.

Boone AW, Wise JR Jr: Penicillin-induced hemolytic anemia. J MAINE MED ASSOC, Brunswick 62:287-288, Dec 1971.

*Duncan WP, Kuhn US 3rd: Reactivity of treponemal and nontreponemal tests with cerebrospinal fluid from syphilitic chimpanzees. J INFECT DIS, Chicago 125:61-65, Jan 1972.

Gadzhiev RG, Davatdarova MM: The clinical characteristics of skin allergic reactions associated with the use of penicillin (RUSSIAN). KLIN MED (MOSK), Moskva 49:99-102, Aug 1971.

*Gibowski M, Rosner J: Immunoelectrophoretic studies of immunoglobulins in early acquired syphilis (POLISH). PRZEGL DERMATOL, Warszawa 58:708-713, Nov-Dec 1971.

Hirsch HA, Branscheidt G, Datwyler C: Epidemiology and antibiotic sensitivity of pathogens in gynecological-obstetrical infections (GERMAN). GEBURTSHILFE FRAUENHEILKD, Stuttgart 31:923-930, Oct 1971.

Ibister JR: Penicillin allergy. REV ALLERGY, Boston 25:1201-1204, Dec 1971.

Ibister JP: Penicillin allergy. A review of the immunological and clinical aspects. MED J AUST, Sydney 1:1067-1074, May 15, 1971.

Izzat NN, Smith EB, Jackson SW: Immunological studies on treponemal antigens. I. Isolation and characterization of an antigenic substance in the culture supernatant of avirulent *T. pallidum* (Nichols). BR J VENER DIS, London 47:329-334, Oct 1971.

Jensen HA, Halveg AB, Saunamaki KI: Permanent impairment of renal function after methicillin nephropathy. BR MED J, London 4:406, Nov 13, 1971.

Kraft D, Werner HP, Stemberger H: Immunoglobulin E demonstration using immunfluorescence technic in penicillin allergy of the serum disease type (GERMAN). WEIN KLIN WOCHENSCHR, Vienna 83:758-761, Oct 22, 1971.

Lai CH: Immunological characters of *Bacterionema matruchotii* with serological relations to the sera of periodontal disease and syphilitic patients. J OSAKA DENT UNIV, Osaka 3:1-20, Apr 1969.

*Levine BB: Skin rashes with penicillin therapy: Current management. N ENGL J MED, Boston 286:42-43, Jan 6, 1972.

Millian SJ, Cherubin CE: Serologic investigations in narcotic addicts. 3. Latex fixation, C-reative protein, "monotest," serum proteins, and SH antigen. AM J CLIN PATHOL, Baltimore 56:693-698, Dec 1971.

*Moene Y, Aimard G, Perrenin Mt, et al: Acute psychotic reaction after injection of procaine penicillin (FRENCH). J MED LYON, Lyon 52:1323-1325, Oct 20, 1971.

Mozhaev IF: Anaphylactic shock following an intradermal penicillin test (RUSSIAN). VRACH DELO, Kiev 12:113-115, Dec 1971.

*Neu HC, Winshell EB: *In vitro* antimicrobial activity of 6 [D(-) d-Amino-P-hydroxyphenylacetamido] penicillanic acid, a new semisynthetic penicillin. ANTIMICROB AGENTS CHEMOTHER, Detroit 10:407-410, 1970.

Ovcinnikov NM: Seroresistant syphilis (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:35-41, Aug 1971.


*Abstracted

Ovcinnikov NM, Delektorskii VV: Effect of penicillin and bicillin-1 in experimental syphilis in rabbits (experimental electron microscopic study) (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:42-47, Jun 1971.

*Ovcinnikov NM, Delektorksii VV: Current concepts of the morphology and biology of *Treponema pallidum* based on electron microscopy. BR J VENER DIS, London 47:315-328, Oct 1971.

Schroter K, Lorenz K: Nicolau syndrome, form of drug-induced embolism. (Clinical picture-etiology and pathogenesis-prevention-comparison with Hoigne syndrome) (GERMAN). Z AERZTL FORTBILD, Jena 65:725-731, Jul 15, 1971.

Schulz KH, Schopf E, Wex O: Allergic occupational eczemas caused by ampicillin (GERMAN). BERUFSDERMATOSEN, Aulendorf 18:132-143, Jun 1970.

Segura JW, Kelalis PP, Martin WJ: Anaerobic bacteria in the urinary tract. MAYO CLIN PROC, Rochester 47:30-33, Jan 1972.

Tumasheva NI, Remeniuk VK, Likhniakevich NV: Evaluation of the autoimmune response in syphilis by use of a modified Jerne method (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:62-64, Nov 1971.

Umemoto Y, Nitta T, Matsuoka S: Colony formation and immunological studies on *Treponema pallidum* Kazan strain and Reiter strain. J OSAKA DENT UNIV, Osaka 1:1-13, 1967.

Warren CM Jr.: Treatment of allergic emergencies. OTOLARYNGOL CLIN NORTH AM, Philadelphia 4:599-608, Oct 1971.

Weck AL De: Penicillin allergy (GERMAN). DTSCH MED J, Berlin 21:1154-1166, Sep 20, 1970.

Zarate O, Stoichevich De Sunol ME, Quinteros H: The lymphocyte transformation test in drug allergy (SPANISH). PRENSA MED ARGENT, Buenos Aires 58:1605-1608, Oct 8, 1971.



*Abstracted

# PUBLIC HEALTH METHODS

"BLITZ" PROVES EFFECTIVE PUBLIC HEALTH TOOL. C. F. Jacobs, Lewis S. Anderson, Jr., and Timothy W. Groza-Charleston County Health Department, Charleston, South Carolina. J SC MED ASSOC (Florence) 67:417-419, September 1971.

Authors' summary: During a five-week blitz of Charleston County [South Carolina], in June and July, 1970, 31 new early syphilis cases were brought to treatment through intensified epidemiologic efforts. Thirty percent of these were found through "negative contact interviews" which greatly accelerated the casefinding process and significantly reduced the number of cases reported during the six-month period following the blitz. The campaign was conducted by eight syphilis epidemiologists under the direction of the county health officer and proved to be an effective tool for combating early syphilis in the community.

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SCREENING TESTS FOR GONORRHEA IN CLINICS FOR CONTRACEPTIVE ADVICE. Vera Starch, Marc Bygdeman, Gunnel Eriksson, Nils-Otto Heinertz, and Ingegerd Moberg–Riksforbundet for sexuell upplysning, Box 170 06, 104 62 Stockholm, Sweden. NORD MED (Stockholm) 86:1430-1432, December 2, 1971.

English summary: "In Sweden, as in other countries, the incidence of gonorrhea is rising. The female cases form a high proportion, comprising 45 percent of all new cases in Sweden in 1970. Therefore, The Swedish Association for Sex Education made a study at its clinics in Stockholm and Goteborg where 1,556 women were examined by cultures for gonorrhea. All attended the clinics for the purpose of contraception and not for symptoms of disease. We found that in the age-group 15-24 years 2.5 percent had gonorrhea (23 out of 926). In the age-range 25-49 years, only 1 woman had gonorrhea. Thus, screening tests for gonorrhea in women would be profitable only in those under 25 years of age."

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VENEREAL DISEASE EDUCATION USING A TEACHING QUESTIONNAIRE. R. M. F. Manuel and Ralph L. Persad–(Dr. Persad) Medical Officer in Charge, V.D. Clinics, Ontario Department of Health, Toronto, Ontario, Canada. CAN J PUBLIC HEALTH (Toronto) 62:336-339, July-August 1971.

"One of the major difficulties in introducing venereal disease education into high schools and the upper grades of elementary schools is that teachers and personnel are afraid of the subject. . . .It was thought desirable to develop a short multiple choice questionnaire which could be given to students before a film or other information was presented so that the students would be made aware of the gaps in their knowledge and be stimulated to pay attention to the details of the presentation which followed." Each teaching session consisted of a brief introduction concerning the purpose and mechanics of the questionnaire, about 10 minutes for the test, 25 minutes for a film and slide presentation, and about 20 minutes to review the 20 questions as well as to deal with other questions which arose. Some slides relating to public health significance of the disease were shown, as well as some showing the congenital and tertiary effects of syphilis. In all, 800 students were tested, consisting mainly of high school pupils in the upper grades and community colleges. The results obtained on the questionnaire from 355 students are shown for each individual question.

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ADVANCES IN THE TREATMENT OF SEXUALLY TRANSMITTED DISEASES. R. D. Catterall–Department of Venereology, James Pringle House, The Middlesex Hospital, London, England. PRACTITIONER (London) 207:516-523, October 1971.

The number of patients requiring treatment for venereal and other sexually transmitted diseases has been increasing at an accelerating rate during the past decade. In England and Wales the increase has been greatest among women and young people and reflects the changes in sexual attitudes and behavior of the 1960's and the greater freedom and independence of girls and women. There has also been marked alteration in the type of disease seen at the clinics. The older, classical, statutory venereal diseases, syphilis, gonorrhea, and chancroid, constitute only about a third of the conditions diagnosed. The majority of the patients are found to have other sexually transmitted diseases such as trichomoniasis, nonspecific genital infection, candidiasis, genital herpes, warts, pediculosis pubis, scabies and a variety of other medical and surgical conditions which have been recognized and classified as sexually transmitted only during the past quarter of a century.

Author discusses the diagnosis and treatment of the more common venereal diseases: gonorrhea, nonspecific genital infection, trichomoniasis, candidiasis, syphilis, genital herpes; a brief reference is made to other skin diseases which occur on the genitalia.

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TRENDS AND STATUS OF GONORRHEA IN THE UNITED STATES. William J. Brown–Venereal Disease Branch, Center for Disease Control, Atlanta, Georgia 30333. J INFECT DIS (Chicago) 123:682-688, June 1971.

The number of reported cases of gonorrhea in the United States has more than doubled in the past ten years. Every state and region in the country has reported increases in cases since 1957, and a summary of national data indicates that increases have occurred in all races, in both males and females, in all age groups, in large and small cities and rural areas, and among patients of both public and private medical facilities. Almost three males are treated and reported for each female treated and reported. Gonorrhea in females is frequently asymptomatic or relatively so. In the absence of widespread screening for asymptomatic disease in the female population, it is probable that many, perhaps the majority, of gonorrhea infections in females are undetected. There is extreme regularity of seasonality of reported cases over the last 12 years. The peak within each year occurs in the July-September quarter and the low point each year is during January-March. The cause of the seasonal pattern of reported cases is not known.

For females, the age group of greatest risk is 20-24 years followed rather closely by 15-19 years. Although males 20-24 years old have the highest risk also, the next highest rate among males is in the 25-29 year age bracket which is followed by the 15-19 group. Well over half of all reported cases in each sex are among persons less than 25 years of age.

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GONORRHEA IN THE ADOLESCENT. Robert Sanders–Director, Rutherford County Health Department, Murfreesboro, Tennessee 37120. J TENN MED ASSOC (Nashville) 64:1052-1054, December 1971.

Gonorrhea among adolescents and young adults accounts for more than half the reported cases in our country. The causes for the gonorrhea epidemic are many and varied: the asymptomatic female (and male); lack of immunity; inadequate therapy; drug resistance; inadequate laboratory tools; sexual laxity and peer complex; the pill; thwarted, inadequate VD education; inadequate budgets; lack of reporting. Although the problem seems hopeless, some progress toward control should be recognized: (1) Wider clinical use of the "transgrow" or Thayer-Martin media has helped in detecting infection in not only known asymptomatic male and female contacts, but also in routine screening of women in certain public clinics and private offices. (2) Extragenital gonococcal disease is now being detected and reported. Physicians are urged to be alert to consider the gonococcus as a possible cause of tenosynovitis, periostitis, pericarditis, meningitis, perihepatitis, opthalmia neonatorum, proctitis, and even

pharyngitis. (3) State Public Health Laws, which permit physicians to examine, diagnose and treat minors with venereal disease without knowledge or counsel of parents, have allowed a more vigorous approach toward therapy for our youth.

Author concludes that private medicine, public health, and the educational institutions must join hands in developing an extensive educational program. This program should be labeled "health education" rather than "sex education," thus permitting broader acceptance by both parents and educators.

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THE REPORTING OF VENEREAL DISEASE BY PHYSICIANS. R. H. Vanderhook–Director, Division of Communicable Disease Control, Indiana State Board of Health, 1330 E. Michigan Street, Indianapolis, Indiana 46206, J INDIANA STATE MED (Indianapolis) 64:1187-1188, November 1971.

"The role of the physician begins with the diagnosis and treatment of the victim of venereal disease. But it cannot end there. For if these diseases are ever to be stamped out, it is imperative that every case be reported promptly to health authorities. It then becomes the responsibility of the health authority, with the approval of the reporting physician, to follow up on this report–to identify other persons who have had intimate contact during the course of infection. For these, too, must be located and examined and, if necessary, treated. . .Surveys indicate that those venereal disease cases that come to private medical attention are thinly distributed among a great many physicians. However, such cases in toto represent the great majority of treated infectious syphilis and gonorrhea incidence in the country in any given period."

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## Behavioral Studies

ATTITUDES TO VENEREAL DISEASE IN A PERMISSIVE SOCIETY. Arthur S. Wigfield–Newcastle upon Tyne University, Newcastle General Hospital, Newcastle upon Tyne, NE4 6BE, England. BR MED J (London) 4:342-345, November 6, 1971.

"The sexually permissive section of society shows little but ignorance, indifference, or contempt for the venereal diseases. . .Sexual promiscuity is the sine qua non of venereal disease, but it affects the few." Author reports that in his clinic there are many incorrigible repeaters, with some 27 percent of the men having had gonorrhea before, 17 percent once, 5 percent twice, and 5 percent three times; 9 percent had it twice in one year. "There will be degrees of promiscuity. Only a permissive society will decide where the definitive line is to be drawn."

"It is sad to reflect that ignorance, particularly concerning infectivity, indifference, particularly concerning contacts of known cases, and prejudice are to be found within the medical profession as well as outside it. Medical men's knowledge of the venereal diseases varies according to the medical school where students study. Respect for venereal disease is in direct proportion to the amount of time spent studying it."

The attitude of patients themselves is colored by the public's attitude as a whole. There now is more understanding and forgiveness. Importance of treatment and avoidance of infecting others are better understood. On the other hand, patients know they are cured rapidly and gladly accept repeated attacks. "For this reason drawing lurid pictures and quoting dire consequences should have no part in educating the public about V.D. today, for V.D. is no longer a penalty for those who know about it."

In conclusion, the author points out that venereologists neither judge nor censure their patients; their concern is for a civilized, responsible approach to the subject of sex. However, he feels it is time the venereologist "blew the whistle" on the controllers of mass media and the cult of the sensuous, salacious and sensational. "There is so much more than death that is worth avoiding, yet much health education of the public lays emphasis on quantity rather than quality of life."

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INFLUENCE OF GONOCOCCAL URETHRITIS IN MEN ON THEIR PSYCHIATRIC STATE. (Abstract of presentation at International Meeting on Gonorrhea, 1971.) R. Giard–Cochin Hospital, Department of Urology, Paris, France. BR J VENER DIS (London) 47:379, October 1971.

Journal abstract: Urogenital infections in males can influence, more than any other disease, the psychoemotional equilibrium of patients. The severity and duration of such psychic repercussions, usually represented by depression, depend essentially on the psychoaffective constitution of the patient, but the behavior of the physician in diagnosing and treating genital infections can play an important role in resolving or worsening psychoemotional changes. Some examples are reported in order to demonstrate the ideal behaviour of the physician in the presence of emotionally sensitive patients.

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## Selected Bibliography

## Public Health Methods


Anonymous: Treatment and prevention of syphilis and gonorrhea. MED LETT DRUGS THER, New York 13:85-87, Oct 1971.

Anonymous: VD control measures. J AM PHARM ASSOC, Washington 11:424-427, Aug 1971.

Anonymous: V.D. protection for males. N ENGL J MED, Boston 285:1488-1489, Dec 23, 1971.

Anonymous: Venereal disease education program. ROCKY MT MED J, Denver 68:28, Dec 1971.

Anonymous: Venereal disease rampant. JAMA, Chicago 218:731, Nov 1, 1971.

Aguirre Zozaya FJ, Reyes Reyes RM, Ruiz Sanchez C: Detection and management of the pregnant patient with a venereal problem (SPANISH). GINECOL OBSTET MEX, Mexico 31:91-116, Jan 1972.

Amblard P, Ricard J, Martel J: Current aspects of blennorrhagia. Statistical study of 200 patients (FRENCH). BULL SOC FR DERMATOL SYPHILIGR, Paris 78:188-190, 1971.

Atallah F: Considerations on gonorrhoea in the Middle East. BR J VENER DIS, London 47:377-378, Oct 1971.

Avrach W, Ziprkowski L: Factors influencing the spread of venereal disease in Israel (HEBREW). HAREFUAH, Tel Aviv 81:78-82, Jul 15, 1971.

Baccaredda-Boy A, Rebora A: Epidemiological and therapeutic data on gonorrhoea in Genoa and other parts of Italy. BR J VENER DIS, London 47:378, Oct 1971.

Bacon WR, Lofholm PW, Mayer FS: VD in California—education and awareness. J AM PHARM ASSOC, Washington 11:429-433, Aug 1971.

Bafvestedt B: Dermatological and venereal diseases told about in the Bible (SWEDISH). LAKARTIDNINGEN, Stockholm 68:3793-3802, Aug 18, 1971.

Banerjee BN: Venereology—conditions in India. J INDIAN MED ASSOC, Calcutta 56:139-140, Mar 1, 1971.

Belonogova NA, Moskovkin PT: Achievements in the control of dermatologic and venereal diseases in Yamal (40th anniversary of the formation of the Yamal-Nenets National Region) (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:61-63, Jun 1971.

Biemans R, Butera S, Cirera P: Serologic and parasitologic survey in aboriginal populations of the Republic of Rwanda. I. Results of the serologic survey. Frequency of syphilis in aboriginal populations of the Republic of Rwanda. II. Results of the parasitologic survey: Protist and filariae (FRENCH). BULL SOC PATHOL EXOT, Paris 64:277-291, May-Jun 1971.

Brenner LR: VD prevention—pharmacy's challenge and opportunity. J AM PHARM ASSOC, Washington 11:438-440, Aug 1971.

Bronner VM, Aruin M: The beginning of venereal disease control in the USSR (V.M. Bronner, 1876-1938) (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:54-58, May 1971.

*Brown WJ: Trends and status of gonorrhea in the United States. J INFECT DIS, Chicago 123:682-688, Jun 1971.

Brown WJ: VD—everyone's concern. J AM PHARM ASSOC, Washington 11:422-423, Aug 1971.

Casinelli M Jr: Beyond expectations. J AM PHARM ASSOC, Washington 11:434-435, Aug 1971.

*Catterall RD: Advances in the treatment of sexually transmitted diseases. PRACTITIONER, London 207:516-523, Oct 1971.




*Abstracted

Cirera P, Lefevre-Witier P, Treilhou JP: Frequency of treponematoses in certain populations of Agades Department (Republic of Niger) (FRENCH). BULL SOC PATHOL EXOT, Paris 64:291-296, May-Jun 1971.

Dandy S: New legislation for treating minors with venereal disease. ARIZ NURSE, Phoenix 24:55, Sep-Oct 1971.

Delune H: Epidemiological trend of gonorrhoea in recent years. BR J VENER DIS, London 47:377, Oct 1971.

Faye AJ: Epidemiological aspects of gonococcal infections in Dakar. BR J VENER DIS, London 47:378, Oct 1971.

Felton WF: Incidence of gonorrhoea. BR MED J, London 4:683, Dec. 11, 1971.

Flegel K: The condom. N ENGL J MED, Boston 286:218-219, Jan 27, 1972.

Fleming JH: Operation great concern. J AM PHARM ASSOC, Washington. 11:441-442, Aug 1971.

Grubb R, Magnusson B: The gonorrhea problem: Action planning (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4285-4288, Sep 15, 1971.

Guthe T, Willcox RR: VD around the world. J AM PHARM ASSOC, Washington 11:428, Aug 1971.

Hansson H: The gonorrhea situation today (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4239-4241, Sep 15, 1971.

Hossain AS: A portrait of British venereology. J INDIAN MED ASSOC, Calcutta 56:143-146, Mar 1, 1971.

*Jacobs CF, Anderson LS Jr., Gronza TW: "Blitz" proves effective public health tool. J SC MED ASSOC, Florence 67:417-419, Sep 1971.

Larsson Y, Larsson U: Congenital syphilis in Addis Ababa. ETHIOP MED J, Addis Ababa 8:163-172, Oct 1970.

Lindholm K, Stormby N: Gonorrhea and gynecological examination during a health survey (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4263-4264, Sep 15, 1971.

Luger AF: Problems concerning gonorrhoea in Austria. BR J VENER DIS, London 47:378, Oct 1971.

*Manuel RM, Persad RL: Venereal disease education using a teaching questionnaire. CAN J PUBLIC HEALTH, Toronto 62:336-339, Jul-Aug 1971.

Mardh PA, Stormby N, Westrom L: Gonorrhea in a female out-patient-material (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4261-4262, Sep 15, 1971.

Michael M: Problems of gonorrhea in Israel (HEBREW). HAREFUAH, Tel Aviv 80:229-232, Mar 1, 1971.

Palous V, Sturma J, Krecek J: Experience with the diagnosis and treatment of gonorrhea in women (CZECHOSLOVAKIAN). CESK DERMATOL, Praha 46:256-261, Dec 1971.

Pariser H: The silent epidemic—venereal disease. VA MED MON, Richomond 98:635-636, Dec 1971.

Prieto JG: Aspects of the present problem of gonorrhoea in Spain. BR J VEN DIS, London 47:378-379, Oct 1971.

Riggs M: Venereal disease education, CALIF MED, San Francisco 115:74-75, Oct 1971.

Samenius B, Hansson HP: Venereal diseases of the anorectum. MOD TREAT, New York 8:875-891, Nov 1971.

*Sanders R: Gonorrhea in the adolescent. J TENN MED ASSOC, Nashville 64:1052-1054, Dec 1971.

Shetsiruli LT, Pkhaladze GM: Achievements in dermatovenereology in Georgia (1921-1971) (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:72-76, Nov 1971.

*Abstracted

Silver PS, Darling WM: Penicillin-insensitive gonococci in the Boltan area. Preponderance in young women and immigrants. BR J VENER DIS, London 47:367-372, Oct 1971.

*Starch V, Bygdeman M, Eriksson G, et al: Screening tests for gonorrhea in clinics for contraceptive advice (SWEDISH). NORD MED, Stockholm 86:1430-1432, Dec 2, 1971.

Studnitsin AA, Turanov NM, Vasil'ev TV: Some urgent problems of current syphilology (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:3-9, Jul 1971.

Szarmach H, Wisniewska C, Poniecka H: Analysis of early syphilis incidence in the rural environment of the Bialystok Province between 1965 and 1969 (POLISH). PRZEGL DERMATOL, Warszawa 58:279-286, May-Jun 1971.

Torsuev NA, Gol'shtein LM: Experience of work of the Chair of Skin and Venereal Diseases in aiding public health organizations (RUSSIAN). VESTN DERMATOL VENEROL, Moskva 45:57-60, Sep 1971.

Tsugami H, Matsunaga K, Oyama S: Epidemiology of syphilis (JAPANESE). SAISHIN IGAKU, Osaka 26:1890-1896, Oct 1971.

*VanderHook RH: The reporting of venereal disease by physicians. J INDIANA STATE MED, Indianapolis 64:1187-1188, Nov 1971.

Vasiljevic A: Venereal diseases in patients of dermatovenereal institute and importance of preventive treatment (1966 to 1970) (CROATIAN). MED ARH, Sarojevo 24:17-24, Mar-Dec 1970.

Wallace HM: Venereal disease in teen-agers. CLIN OBSTET GYNECOL, New York 14:432-441, Jun 1971.

Wigfield AS: V.D. statistics. BR MED J, London 4:750, Dec 18, 1971.

Zablotniak R: Social antivenereal activity of the Polish Eugenic Society in Warsaw (1916-1939). A contribution to the history of medical societies. POL MED J, Warszawa 10:1024-1030, 1971.

## Behavioral Studies

*Giard R: Influence of gonococcal urethritis in men on their psychiatric state. BR J VENER DIS, London 47:379, Oct 1971.

Gustavsson N: Socio-medical aspects of patients with venereal diseases (SWEDISH). LAKARTIDNINGEN, Stockholm 68:4280-4284 PASSIM, Sep 15, 1971.

Nicol CS: Sequelae of sexual freedom: The sexually transmitted diseases. PROC R SOC MED, London 64:1108-1111, Nov 1971.

Olsen GA: Assessment of the sexual norms among the unmarried in Greenland (DANISH). UGESKR LAEGER, Kobenhavn 133:2443-2448, Dec 10, 1971.

*Wigfield AS: Attitudes to venereal disease in a permissive society. BR MED J, London 4:342-345, Nov 6, 1971.



*Abstracted

# BOOKS

**VENEREAL DISEASE BIBLIOGRAPHY, 1966-1970.** Stephen H. Goode. Whitson Publishing Company, Troy, N.Y. 1972. $22.50.

---

**SEXUALLY TRANSMITTED DISEASES.** C. B. S. Schofield. 256 p. 12 illus. Churchill Livingstone, Teviot Place, Edinburgh. 1972. £1.25.

The personality of patients with sexually transmitted diseases is discussed from the psychological rather than the psychiatric point of view. Discussion includes diseases in the tropics as well as temperate climates.

---

**SPIROCHETES IN BODY FLUIDS AND TISSUES. MANUAL OF INVESTIGATIVE METHODS.** Edited by J. N. Miller. 72 p. 6 figs. Bibl. Thomas, Springfield, Illinois. 1971. $5.50.

This monograph was produced by a committee set up following the Seminar and Workshop on Spiral Organisms in Body Fluids held in Atlanta in 1969 under the sponsorship of the Venereal Disease Branch of the Center for Disease Control. Its aims are to describe treponemal disease in experimental animals and to recommend standardized procedures and reagents for the demonstration of treponemes.

---

**THE LIVELY COMMERCE: PROSTITUTION IN THE UNITED STATES.** Charles Winick and Paul M. Kinsie. Quadrangle Books, Inc., Chicago. 1971. $8.95.

The changing patterns in the use of prostitutes are discussed, as well as their effects with regard to venereal disease.

**THE V.D. STORY.** Stewart M. Brooks. 1972. Littlefield, Adams & Company, Totowa, N.J. Paperback $1.95.

Medicine's battle against the scourge of venereal disease. The author takes a lively and sharp look at what is known and not known about syphilis, gonorrhea, chancroid, trichomonas vaginitis, and crab lice. [Note: For the hardback edition, see CLVD No. 3, 1971.]

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**REPORT OF THE NATIONAL COMMISSION ON VENEREAL DISEASE to the Assistant Secretary for Health and Scientific Affairs, Department of Health, Education, and Welfare. 1972.** Limited quantity available free of charge for single copy requests to Technical Information Services, State and Community Services Division, Center for Disease Control, Atlanta, Georgia 30333.

The venereal diseases, syphilis and gonorrhea, have reached epidemic proportions throughout the Unites States. The Assistant Secretary of Health and Scientific Affairs, DHEW, deemed it advisable to convene a body of knowledgeable and concerned physicians from national health organizations and national medical specialty groups to study the problems, to consider ways to reduce the incidence of venereal disease, and to make recommendations for control to him and to the professional groups which the Commission members represent. The Commission, consisting of a Chairman and 16 members, met in Washington, D.C. in April 1971.

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